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      85          90          95
Gly Leu Pro Gln Val Pro His Met Ala Tyr Cys Ala Leu Glu Asn Leu
      100          105          110
Tyr Leu Leu Met Gly Arg Glu Leu Glu Tyr Leu Glu Glu Val Pro Pro
      115          120          125
Gly Asn Val Leu Gly Ile Gly Gly Leu Gln Asp Phe Val Leu Lys Ser
      130          135          140
Ala Thr Leu Cys Ser Leu Pro Ser Cys Pro Pro Phe Ile Pro Leu Asn
      145          150          155          160
Phe Glu Ala Thr Pro Ile Val Arg Val Ala Val Glu Pro Lys His Pro
      165          170          175
Ser Glu Met Pro Gln Leu Val Lys Gly Met Lys Leu Leu Asn Gln Ala
      180          185          190
Asp Pro Cys Val Gln Ile Leu Ile Gln Glu Thr Gly Glu His Val Leu
      195          200          205
Val Thr Ala Gly Glu Val His Leu Gln Arg Cys Leu Asp Asp Leu Lys
      210          215          220
Glu Arg Phe Ala Lys Ile His Ile Ser Val Ser Glu Pro Ile Ile Pro
      225          230          235          240
Phe Arg Glu Thr Ile Thr Lys Pro Pro Lys Val Asp Met Val Asn Glu
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<210> 5835  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

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 aaagaggatg ccatggtgga gtttgtcaag ctcttaaata ggtgttgcca tctcttttca  
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<210> 5836  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 5836  
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 Ala Leu Arg Phe Phe Lys Glu Lys Asp Gly Lys Ala Phe His Pro Thr



```

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Tyr Glu Glu Lys Leu Lys Leu Val Ala Leu His Lys Gln Val Leu Met
      35                40                45
Gly Pro Tyr Asn Pro Asp Thr Cys Pro Glu Val Gly Phe Phe Asp Val
      50                55                60
Leu Gly Asn Asp Arg Arg Arg Glu Trp Ala Ala Leu Gly Asn Met Ser
65      70                75                80
Lys Glu Asp Ala Met Val Glu Phe Val Lys Leu Leu Asn Arg Cys Cys
      85                90                95
His Leu Phe Ser Thr Tyr Val Ala Ser His Lys Ile Glu Lys Glu Glu
      100                105                110
Gln Asp Lys Lys Arg Lys Glu Glu Glu Glu Arg Arg Arg Arg Glu Glu
      115                120                125
Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys
      130                135                140

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&lt;210&gt; 5837

&lt;211&gt; 582

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5837

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582

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&lt;210&gt; 5838

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5838

```

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  1                5                10                15
Phe Ser Met Leu Cys Cys Phe Trp Pro Val Gly Ile Ala Ala Phe Cys
      20                25                30
Leu Ala Gln Lys Thr Asn Lys Ala Trp Ala Lys Gly Asp Ile Gln Gly

```



35	40	45
Ala Gly Ala Ala Ser Arg Arg Ala Phe Leu Leu Gly Val Leu Ala Val		
50	55	60
Gly Leu Gly Val Cys Thr Tyr Ala Ala Ala Leu Val Thr Leu Ala Ala		
65	70	75
Tyr Leu Ala Ser Arg Asp Pro Pro		80
85		

&lt;210&gt; 5839

&lt;211&gt; 1895

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5839

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120
cattcgaatg catcccaacc agtgctcagc tgcgtaacga catggagaga ggcagggggg
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1200

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 1895

&lt;210&gt; 5840

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5840

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			20					25					30		
Leu	Met	Val	His	Gly	Trp	Cys	Pro	Val	Ile	Phe	Ser	Trp	Ala	Val	Ala
			35					40				45			
Pro	Arg	Gly	Ser	Gly	Phe	Pro	Ala	Gln	Gly	Ile	Phe	Asp	Pro	Cys	Gln
			50					55				60			
Arg	Arg	Glu	Arg	Glu	Leu	Ser	Trp	Phe	Pro	Phe	His	Leu	Phe	Ser	Gly
65					70					75					80
Cys	Phe	Lys	Ala	Asn	Ile	Pro	Val	Pro	Asn	Val	Leu	Cys	Gly	Leu	Asn
				85						90				95	
Pro	Gly	Arg	Gly	Gln	Gly	His	Ile	Gln	Val	Gly	Leu	Ala	Ser	Ser	Thr
			100					105					110		
Thr	Phe	Trp	Pro	Gln	Gln	Arg	Met	Gly	Phe	His	Gln	Ser	Leu	Ser	Thr
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Ser	Arg	Phe	Pro	Lys	Glu	Ser	Pro	Arg	Ser						
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&lt;210&gt; 5841

&lt;211&gt; 3411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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<211> 460

<212> PRT

<213> Homo sapiens

<400> 5842

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			20				25						30		
Thr	Leu	Trp	Gly	His	Glu	Asn	Pro	Phe	Ser	Asp	Leu	Pro	Ser	Gly	Thr
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Leu	Asn	Phe	His	Pro	Val	Trp	Thr	Ser	Arg	Thr	Cys	Ser	Arg	Pro	Pro
	50					55					60				
Phe	Cys	Leu	Ser	Gln	Ile	Val	Gln	Leu	Lys	Ala	Ile	Asn	Val	Asp	Leu
65					70					75				80	
Gln	Ser	Asp	Ala	Ala	Leu	Gln	Val	Asp	Ile	Ser	Asp	Ala	Leu	Ser	Glu
				85					90					95	
Arg	Asp	Lys	Val	Lys	Phe	Thr	Val	His	Thr	Lys	Ser	Ser	Leu	Pro	Asn
		100						105						110	
Phe	Lys	Gln	Asn	Glu	Phe	Ser	Val	Val	Arg	Gln	His	Glu	Glu	Phe	Ile
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Trp	Leu	His	Asp	Ser	Phe	Val	Glu	Asn	Glu	Asp	Tyr	Ala	Gly	Tyr	Ile
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Val	Lys	Asp	Val	Asp	Asp	Phe	Phe	Glu	His	Glu	Arg	Thr	Phe	Leu	Leu
			260					265					270		
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Thr	Arg	Ser	His	Lys	Ser	Ala	Ala	Asp	Asp	Tyr	Asn	Arg	Ile	Gly	Ser
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<211> 6446
<212> DNA
<213> Homo sapiens
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840

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&lt;210&gt; 5844

&lt;211&gt; 823

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5844

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&lt;210&gt; 5845

&lt;211&gt; 2762

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5845

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<211> 257

<212> PRT

<213> Homo sapiens

<400> 5846

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&lt;211&gt; 1021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5847

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&lt;210&gt; 5848

&lt;211&gt; 120

&lt;212&gt; PRT



<213> Homo sapiens

<400> 5848

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Gly Thr Ser Ser Cys Gly Arg Val Arg Ala Cys Gly Arg Ile His His
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Asn Met Ala Asn Leu Phe Ile Arg Lys Met Val Asn Pro Leu Leu Tyr
      20           25           30
Leu Ser Arg His Thr Val Lys Pro Arg Ala Leu Ser Thr Phe Leu Phe
      35           40           45
Gly Ser Ile Arg Gly Ala Ala Pro Val Ala Val Glu Pro Gly Ala Ala
      50           55           60
Val Arg Ser Leu Leu Ser Pro Gly Leu Leu Pro His Leu Leu Pro Ala
      65           70           75           80
Leu Gly Phe Lys Asn Lys Thr Val Leu Lys Lys Arg Cys Lys Asp Cys
      85           90           95
Tyr Leu Val Lys Arg Arg Gly Arg Trp Tyr Val Tyr Cys Lys Thr His
      100          105          110
Pro Arg His Lys Gln Arg Gln Met
      115          120

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<210> 5849

<211> 3174

<212> DNA

<213> Homo sapiens

<400> 5849

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120
aaaaatctca agaccacagg acagcgtgag ccccccaccc ctcccccaat gaccccgca
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240
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300
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420
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480
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gtttatgtgg acaaaccagt tcccaagcta cttcccactt ctccctcctc caaccagaag
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gggggaaaag ggagaggcca caggggcaaag agtgtattag ggctgagct gcagctgcct
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720
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gggagactac ggagggccaa gaatagagaa gccaggccc cgggatttat tctaactcct
840

```



gccaaaawyy mmttggtttt ttaaaaaata atcacaattt gtgggttaaa aaccaatttg  
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caaccaggca tgagccacaa tcagaaccac cccagcgga gagcggagt ccagacagg  
960  
nattgcagcc ccattctgt tgttccctta accctctagg gtccctaacc cgatcagtc  
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2460



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<210> 5850

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5850

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His	Ser	Val	Pro	Ala	Tyr	Pro	Trp	Asp	Trp	Gly	His	Leu	Ile	Arg	Phe
		20						25						30	
Cys	Thr	Gln	Thr	Gly	His	Ala	Gln	Pro	Cys	Pro	Ser	Ala	Pro	Ser	Thr
		35					40					45			
Gly	Pro	Ile	His	Ile	Ala	Glu	Gly	Gly	Arg	Gly	Arg	Pro	Pro	Pro	Gly
	50					55				60					
Ser	Ala	Ser	Asn	Pro	Gln	Pro	Pro	Gly	Ser	Pro	His	Cys	Pro	Ser	Ala
65				70					75						80
Gly	Leu	Ser	Pro	Val	Pro	Gly	Val	Gly	Gly	Arg	Gln	Cys	Pro	Gly	Thr
			85					90						95	
Val	Pro	Arg	Val	Arg	Arg	Pro	Gly	Leu	Ala	Gly	His	Pro	Val	Thr	His
			100					105					110		
Arg	Ile	Asn	Arg	Lys	Thr	Ala	Ser	Pro	Pro	Asn	Leu	Cys	Pro	Arg	His
		115				120					125				
Asn	Met	Ser	Arg	Ser	Glu	Ser	Cys	Thr	Pro	Arg	Ser	Arg	Ala	Pro	Leu
	130					135					140				
Gln	Arg	Thr	Leu	Thr	Pro	Pro	Arg	Gly	Ala						
145						150									

<210> 5851

<211> 488



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5851

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120
cttggttttg tctcaaaggc aaaaggaaaag gacgaggaag gggccaggcc tcccgccagg
180
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240
gggtgtagtcc ttcttcttgt agctctcata ggcattctgtc ctgcttgtgt cctctgttgt
300
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360
tgctgccatg gttacatcct cagacgtttt attatcaact gttccacag atgcattcct
420
cttgactaat ccctccaca ttttgtagg gacaaagttg cctgggaggg ctgcggttcc
480
tgacgcgt
488

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&lt;210&gt; 5852

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5852

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Met Trp Lys Gly Leu Val Lys Arg Asn Ala Ser Val Glu Thr Val Asp
1           5           10           15
Asn Lys Thr Ser Glu Asp Val Thr Met Ala Ala Ala Ser Pro Val Thr
20           25           30
Leu Thr Lys Gly Thr Ser Ala Ala His Leu Asn Ser Met Glu Val Thr
35           40           45
Thr Glu Asp Thr Ser Arg Thr Asp Ala Tyr Glu Ser Tyr Lys Lys Lys
50           55           60
Asp Tyr Thr Gln Val Asp Tyr Leu Ile Asn Gly Met Tyr Ala Asp Ser
65           70           75           80
Glu Met

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&lt;210&gt; 5853

&lt;211&gt; 487

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5853

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agacggtctc aagagggagg ccagcccggt ccgcggccc ctgacacccc atcaggccgc
120
tcaggccag cagctccatg gaggacgccc gcgaggaccc caccacgttt gctgccact
180

```



ctctgcccag tgacccccgt ctcttggcca ctgtgaccaa cgcataacctg ggcacacgag  
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 300  
 gggccatgct gcccagcccc ctcaacgtcc ggctggaggc ccccgaggg atgggggagc  
 360  
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<210> 5854

<211> 68

<212> PRT

<213> Homo sapiens

<400> 5854

Arg	Glu	Trp	Lys	Val	Gln	Arg	Pro	Glu	Leu	Arg	Glu	Ala	Ser	Gly	Asp
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Tyr	Arg	Arg	Ser	Gln	Glu	Gly	Gly	Pro	Ala	Arg	Pro	Ala	Ala	Pro	Asp
			20					25					30		
Thr	Pro	Ser	Gly	Arg	Ser	Gly	Pro	Ala	Ala	Pro	Trp	Arg	Thr	Pro	Ala
			35				40					45			
Arg	Thr	Pro	Pro	Arg	Leu	Leu	Pro	Thr	Leu	Cys	Pro	Val	Thr	Pro	Val
	50				55						60				
Ser	Trp	Pro	Leu												
65															

<210> 5855

<211> 362

<212> DNA

<213> Homo sapiens

<400> 5855

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 120  
 tcctcccgac cctcccgag gcacctgctg ggggctgtgg ggcccaaagc gggagggagt  
 180  
 taacgaggtt gttgcagaag tcctcctggc ggcacacgaa ggtgtaggag atcagggaga  
 240  
 ggccggggcc catccggtgc tcagtgcgc ggggctcctg gtccttggcc tccgtgcagc  
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 360  
 an  
 362

<210> 5856

<211> 113

<212> PRT



<213> Homo sapiens

<400> 5856

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Met Glu Pro Ala Arg Val Gly Ile Ala Ser Glu Gly Gly Arg Asp Ser
 1           5           10           15
Val Thr Ala Pro Leu Cys Ser Ala Asp Pro Leu Leu Ala Val Pro Pro
      20           25           30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
      35           40           45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
      50           55           60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
65           70           75           80
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
      85           90           95
His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
      100           105           110
Ala

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<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

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120
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180
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720
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840

```



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 960  
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<210> 5858

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5858

Met	Asp	Ser	Val	Glu	Lys	Gly	Ala	Ala	Thr	Ser	Val	Ser	Asn	Pro	Arg
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Gly	Arg	Pro	Ser	Arg	Gly	Arg	Pro	Pro	Lys	Leu	Gln	Arg	Asn	Ser	Arg
			20					25					30		
Gly	Gly	Gln	Gly	Arg	Gly	Gly	Glu	Lys	Pro	Pro	His	Leu	Ala	Ala	Leu
		35					40					45			
Ile	Leu	Ala	Arg	Gly	Gly	Ser	Lys	Gly	Ile	Pro	Leu	Lys	Asn	Ile	Lys
	50					55					60				
His	Leu	Ala	Gly	Val	Pro	Leu	Ile	Gly	Trp	Val	Leu	Arg	Ala	Ala	Leu
65				70					75						80
Asp	Ser	Gly	Ala	Phe	Gln	Ser	Val	Trp	Val	Ser	Thr	Asp	His	Asp	Glu
			85					90					95		
Ile	Glu	Asn	Val	Ala	Lys	Gln	Phe	Gly	Ala	Gln	Val	His	Arg	Arg	Ser
		100						105				110			
Ser	Glu	Val	Ser	Lys	Asp	Ser	Ser	Thr	Ser	Leu	Asp	Ala	Ile	Ile	Glu



```

      115      120      125
Phe Leu Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala
      130      135      140
Thr Ser Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met
145      150      155      160
Ile Arg Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His
      165      170      175
Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu
      180      185      190
Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp
      195      200      205
Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu
      210      215      220
Ile Glu Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met
225      230      235      240
Arg Ala Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile
      245      250      255
Ala Glu Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu
      260      265      270
Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn
      275      280      285
Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp
      290      295      300
Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu
305      310      315      320
Val Arg Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser
      325      330      335
Leu Lys Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala
      340      345      350
Val Val Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val
      355      360      365
Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val
      370      375      380
Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala
385      390      395      400
Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu
      405      410      415
Phe Ala Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys
      420      425      430
Gln Lys

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&lt;210&gt; 5859

&lt;211&gt; 2267

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5859

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120
aaatcacaaac ctctcttttg attccccttc acgctaagcc tctttcaaatt tctttttcct
180

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1740  
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 2160  
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<210> 5860

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5860

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			20					25					30		
Ser	Arg	Ala	Ser	Glu	Ala	Ser	Gly	Ser	Leu	Leu	Leu	Arg	Phe	Phe	Leu
		35					40					45			
Gln	Met	Gly	Leu	Gly	Arg	Cys	Arg	Phe	Cys	Phe	Ser	Pro	Trp	Leu	Pro
	50					55					60				
Val	Arg	Pro	Gln	Pro	Ser	Gly	Cys	Asp	Ile	Ile	Glu	Ser	Ala	Val	Ser
65					70				75					80	
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<210> 5861

<211> 1951

<212> DNA

<213> Homo sapiens

<400> 5861

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 aagctatttg agaaagtcaa agaagtttgt ccaaattgtgc atgagaagat cagagctatt  
 240  
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 300  
 tcctgtacaa acataatatt tcaactgtgca gccactgtac gctttgacga cactctcaga  
 360



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1860  
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1920  
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1951



<210> 5862  
 <211> 514  
 <212> PRT  
 <213> Homo sapiens

<400> 5862  
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 Pro Asp Leu Lys Val Ile Tyr Ile Leu Val Arg Pro Lys Ala Gly Gln  
 35 40 45  
 Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu  
 50 55 60  
 Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile  
 65 70 75 80  
 Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met  
 85 90 95  
 Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr  
 100 105 110  
 Val Arg Phe Asp Asp Thr Leu Arg His Ala Val Gln Leu Asn Val Thr  
 115 120 125  
 Ala Thr Arg Gln Leu Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu  
 130 135 140  
 Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His  
 145 150 155 160  
 Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Lys Ile  
 165 170 175  
 Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr  
 180 185 190  
 Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala  
 195 200 205  
 Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala  
 210 215 220  
 Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro  
 225 230 235 240  
 Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ile Ala Thr  
 245 250 255  
 Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala  
 260 265 270  
 Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly  
 275 280 285  
 Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile  
 290 295 300  
 Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln  
 305 310 315 320  
 Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg  
 325 330 335  
 Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn  
 340 345 350  
 Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg  
 355 360 365  
 Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu



```

      370      375      380
Arg Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp
385      390      395      400
Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp
      405      410      415
Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr
      420      425      430
Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp
      435      440      445
Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn
      450      455      460
Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu
465      470      475      480
Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val
      485      490      495
Ser Phe Cys Tyr Lys Phe Leu Ser Tyr Phe Arg Ala Ser Ser Thr Leu
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Lys Val

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<210> 5863  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

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<400> 5863
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agaagtgccg gtcttaacat tcaactgttg tgactgattt atagaaaaag gggctggatt
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240
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300
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438

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<210> 5864  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

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<400> 5864
Met Gly Glu Lys Asn Lys Gln Leu Gln Ile Arg His Cys Leu Ser Pro
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Asp Cys Ser Leu Pro Val Gly Gln Thr His Ser Asn Thr Lys Leu Phe
      20      25      30
Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

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										35								40								45			
Gln	Pro	Leu	Glu	Gln	Gly	Arg	Thr	Ser	Val	Phe	Thr	Leu	Gly	Ser	Pro														
										50								55								60			
Gly	Tyr	Gln	Asn	Pro	Ala	Pro	Phe	Ser	Ile	Asn	Gln	Ser	Gln	Thr	Val														
65											70								75								80		
Asn	Val	Lys	Thr	Gly	Thr	Ser	Cys	Leu	Glu	Thr	Gln	Ile	Leu	Phe	Gln														
										85								90								95			
Glu	Glu	Tyr	Leu	Arg	Ile	Phe	Leu																						
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<210> 5865
<211> 1229
<212> DNA
<213> Homo sapiens
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<400> 5865
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120
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180
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240
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300
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420
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480
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720
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780
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tgtgcctcca gcatatgaaa aggactattt gaatcccaa aacatcagga gtcgggaaac
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1020
gctatggccg gcccgagacc ttcttgccca gctcctgcag ccctgctgcc tgggatcagg
1080
ctgggagatg ggccttctg accgccagcc ttcctctccc cgagcacacg cacatgtaga
1140

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 1229

<210> 5866  
 <211> 212  
 <212> PRT  
 <213> Homo sapiens

<400> 5866  
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 20 25 30  
 Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr  
 35 40 45  
 Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu  
 50 55 60  
 Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly  
 65 70 75 80  
 Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln  
 85 90 95  
 Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu  
 100 105 110  
 Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr  
 115 120 125  
 Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro  
 130 135 140  
 Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr  
 145 150 155 160  
 Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg  
 165 170 175  
 Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln  
 180 185 190  
 Asn Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr  
 195 200 205  
 Ala Lys Pro Ser  
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<210> 5867  
 <211> 1882  
 <212> DNA  
 <213> Homo sapiens

<400> 5867  
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 180  
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 240



gctggtagaa gacattgtgc gagatggccg gctctatgcc tctgaaaacc accaggagat  
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420  
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480  
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660  
cccttttcta acacactacc tagaaaagcc attcagtact ggctctagtc cccgtgagat  
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840  
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960  
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1020  
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1260  
aagaaaaaat gtatcatcta aaggctctaga cacagaacaa ttggaagtca acttcaaaac  
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1860



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1882

<210> 5868  
<211> 131  
<212> PRT  
<213> Homo sapiens

<400> 5868  
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Gln Thr Tyr Glu Arg Pro Ile Ala Phe Thr Ala Arg Ser Arg Lys Leu  
20 25 30  
Trp Ile Asn Phe Lys Thr Ser Glu Ala Asn Ser Ala Arg Gly Phe Gln  
35 40 45  
Ile Pro Tyr Val Thr Tyr Asp Glu Asp Tyr Glu Gln Leu Val Glu Asp  
50 55 60  
Ile Val Arg Asp Gly Arg Leu Tyr Ala Ser Glu Asn His Gln Glu Ile  
65 70 75 80  
Leu Lys Asp Lys Lys Leu Ile Lys Ala Phe Phe Glu Val Leu Ala His  
85 90 95  
Pro Gln Asn Tyr Phe Lys Tyr Thr Glu Lys His Lys Glu Met Leu Pro  
100 105 110  
Lys Ser Phe Ile Lys Leu Leu Arg Ser Lys Val Ser Ser Phe Leu Arg  
115 120 125  
Pro Tyr Lys  
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<210> 5869  
<211> 910  
<212> DNA  
<213> Homo sapiens

<400> 5869  
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120  
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180  
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240  
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300  
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540  
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600



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<210> 5870  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 5870  
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 Gly Ser Leu Leu Ile Met His His Glu Ala Ser Thr His Arg Val Ile  
 35 40 45  
 Pro Thr Leu Val Gln Thr Gly Leu His Gly Arg His Ile Leu Gly Arg  
 50 55 60  
 His Val Phe Gly Ser Ala Ala Asn Leu Phe Ser Cys Ala Ile Asp Gln  
 65 70 75 80  
 Val Phe Pro Asn Glu Gly Cys Leu Pro Tyr Ser Cys Gln Glu Pro Asn  
 85 90 95  
 Ser Ser Leu Gln Tyr Gln Ile Gln Ser Val Val Arg Met Lys Cys Gly  
 100 105 110  
 Gly Leu Val Thr Glu Glu Ala Val Glu Arg Arg Arg Ala Trp Val Ala  
 115 120 125  
 Pro

<210> 5871  
 <211> 2217  
 <212> DNA  
 <213> Homo sapiens

<400> 5871  
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 120  
 tagtcattca ggagcaagtt gttcagtttc catatagatt ctgtgtgttt tagtcttgct  
 180  
 taaattattt ctactacttc tttgcacccc ttgctagtt ttctcagtgc cgtagggttt  
 240  
 attaaataat aattggactc tagtaatttt ttttaatgag agagagggaa actatatttg  
 300



aaattggatt gggacattta ttttacttaa acagaagttt gcttatgaca cataatctag  
360  
atgggatata tcttatctat agtgtatcca cctgctgtaa gtagatactg tatttgata  
420  
gccattatth tgctgtaagt actttatcat tttaattaaa ttgattaaga ggaaaaaaaa  
480  
agaatggaat tctctttgat gcaacttttt cccccagac cagaatccgt agaagctagc  
540  
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<211> 578

<212> PRT

<213> Homo sapiens

<400> 5872

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Ser Met Glu Asn Ile	Asn Ser Gly Tyr Glu Thr	Arg Arg Lys Lys Gly		
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&lt;210&gt; 5873

&lt;211&gt; 3463

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5873

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&lt;210&gt; 5874



&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5874

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&lt;210&gt; 5875

&lt;211&gt; 5933

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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3720  
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3780  
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3840  
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3900  
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4800



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 4920  
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 5520  
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 5880  
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 5933

&lt;210&gt; 5876

&lt;211&gt; 1648

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5876

Leu	Thr	Ile	His	Leu	Pro	Ala	Ala	Val	Leu	Leu	Lys	Glu	Ile	His	Ile
1				5					10					15	
Gln	Pro	His	Leu	Xaa	Phe	Leu	Ala	Thr	Cys	Pro	Ser	Ser	Val	Ser	Val
			20					25					30		
Glu	Val	Ser	Ala	Asp	Gly	Val	Asn	Met	Leu	Pro	Leu	Ser	Thr	Pro	Val
		35				40					45				
Val	Thr	Ser	Gly	Leu	Thr	Tyr	Ile	Lys	Ile	Gln	Leu	Val	Lys	Ala	Glu
	50					55				60					
Val	Ala	Ser	Ala	Val	Cys	Leu	Arg	Leu	His	Arg	Pro	Arg	Asp	Ala	Ser



65					70					75				80
Thr	Leu	Gly	Leu	Ser	Gln	Ile	Lys	Leu	Leu	Gly	Leu	Thr	Ala	Phe Gly
				85					90					95
Thr	Thr	Ser	Ser	Ala	Thr	Val	Asn	Asn	Pro	Phe	Leu	Pro	Ser	Glu Asp
			100					105					110	
Gln	Val	Ser	Lys	Thr	Ser	Ile	Gly	Trp	Leu	Arg	Leu	Leu	His	His Cys
		115					120					125		
Leu	Thr	His	Ile	Ser	Asp	Leu	Glu	Gly	Met	Met	Ala	Ser	Ala	Ala Ala
	130					135					140			
Pro	Thr	Ala	Asn	Leu	Leu	Gln	Thr	Cys	Ala	Ala	Leu	Leu	Met	Ser Pro
145					150					155				160
Tyr	Cys	Gly	Met	His	Ser	Pro	Asn	Ile	Glu	Val	Val	Leu	Val	Lys Ile
				165					170					175
Gly	Leu	Gln	Ser	Thr	Arg	Ile	Gly	Leu	Lys	Leu	Ile	Asp	Ile	Leu Leu
			180				185					190		
Arg	Asn	Cys	Ala	Ala	Ser	Gly	Ser	Asp	Pro	Thr	Asp	Leu	Asn	Ser Pro
		195					200					205		
Leu	Leu	Phe	Gly	Arg	Leu	Asn	Gly	Leu	Ser	Ser	Asp	Ser	Thr	Ile Asp
	210					215					220			
Ile	Leu	Tyr	Gln	Leu	Gly	Thr	Thr	Gln	Asp	Pro	Gly	Thr	Lys	Asp Arg
225					230					235				240
Ile	Gln	Ala	Leu	Leu	Lys	Trp	Val	Ser	Asp	Ser	Ala	Arg	Val	Ala Ala
			245						250					255
Met	Lys	Arg	Ser	Gly	Arg	Met	Asn	Tyr	Met	Cys	Pro	Asn	Ser	Ser Thr
			260				265					270		
Val	Glu	Tyr	Gly	Leu	Leu	Met	Pro	Ser	Pro	Ser	His	Leu	His	Cys Val
	275					280						285		
Ala	Ala	Ile	Leu	Trp	His	Ser	Tyr	Glu	Leu	Leu	Val	Glu	Tyr	Asp Leu
	290				295						300			
Pro	Ala	Leu	Leu	Asp	Gln	Glu	Leu	Phe	Glu	Leu	Leu	Phe	Asn	Trp Ser
305					310					315				320
Met	Ser	Leu	Pro	Cys	Asn	Met	Val	Leu	Lys	Lys	Ala	Val	Asp	Ser Leu
			325						330					335
Leu	Cys	Ser	Met	Cys	His	Val	His	Pro	Asn	Tyr	Phe	Ser	Leu	Leu Met
		340					345					350		
Gly	Trp	Met	Gly	Ile	Thr	Pro	Pro	Pro	Val	Gln	Cys	His	His	Arg Leu
	355					360						365		
Ser	Met	Thr	Asp	Asp	Ser	Lys	Lys	Gln	Asp	Leu	Ser	Ser	Ser	Leu Thr
	370				375					380				
Asp	Asp	Ser	Lys	Asn	Ala	Gln	Ala	Pro	Leu	Ala	Leu	Thr	Glu	Ser His
385				390					395					400
Leu	Ala	Thr	Leu	Ala	Ser	Ser	Ser	Gln	Ser	Pro	Glu	Ala	Ile	Lys Gln
			405						410					415
Leu	Leu	Asp	Ser	Gly	Leu	Pro	Ser	Leu	Leu	Val	Arg	Ser	Leu	Ala Ser
		420					425					430		
Phe	Cys	Phe	Ser	His	Ile	Ser	Ser	Ser	Glu	Ser	Ile	Ala	Gln	Ser Ile
	435					440						445		
Asp	Ile	Ser	Gln	Asp	Lys	Leu	Arg	Arg	His	His	Val	Pro	Gln	Gln Cys
	450				455					460				
Asn	Lys	Met	Pro	Ile	Thr	Ala	Asp	Leu	Val	Ala	Pro	Ile	Leu	Arg Phe
465				470					475					480
Leu	Thr	Glu	Val	Gly	Asn	Ser	His	Ile	Met	Lys	Asp	Trp	Leu	Gly Gly
			485						490					495
Ser	Glu	Val	Asn	Pro	Leu	Trp	Thr	Ala	Leu	Leu	Phe	Leu	Leu	Cys His



500										505										510																											
Ser	Gly	Ser	Thr	Ser	Gly	Ser	His	Asn	Leu	Gly	Ala	Gln	Gln	Thr	Ser	Ser	His	Asn	Leu	Gly	Ala	Gln	Gln	Thr	Ser	Ser	His	Asn	Leu	Gly	Ala	Gln	Gln	Thr	Ser												
515										520										525																											
Ala	Arg	Ser	Ala	Ser	Leu	Ser	Ser	Ala	Ala	Thr	Thr	Gly	Leu	Thr	Thr	Ala	Ala	Thr	Thr	Gly	Leu	Thr	Thr	Ala	Ala	Thr	Thr	Gly	Leu	Thr	Thr	Ala	Ala	Thr	Thr	Gly	Leu	Thr	Thr								
530										535										540																											
Gln	Gln	Arg	Thr	Ala	Ile	Glu	Asn	Ala	Thr	Val	Ala	Phe	Phe	Leu	Gln	Gln	Gln	Arg	Thr	Ala	Ile	Glu	Asn	Ala	Thr	Val	Ala	Phe	Phe	Leu	Gln	Gln	Gln	Arg	Thr	Ala	Ile	Glu	Asn	Ala	Thr	Val	Ala	Phe	Phe	Leu	Gln
545										550										555																											
Cys	Ile	Ser	Cys	His	Pro	Asn	Asn	Gln	Lys	Leu	Met	Ala	Gln	Val	Leu	Cys	Ile	Ser	Cys	His	Pro	Asn	Asn	Gln	Lys	Leu	Met	Ala	Gln	Val	Leu	Cys	Ile	Ser	Cys	His	Pro	Asn	Asn	Gln	Lys	Leu	Met	Ala	Gln	Val	Leu
565										570										575																											
Cys	Glu	Leu	Phe	Gln	Thr	Ser	Pro	Gln	Arg	Gly	Asn	Leu	Pro	Thr	Ser	Cys	Glu	Leu	Phe	Gln	Thr	Ser	Pro	Gln	Arg	Gly	Asn	Leu	Pro	Thr	Ser	Cys	Glu	Leu	Phe	Gln	Thr	Ser	Pro	Gln	Arg	Gly	Asn	Leu	Pro	Thr	Ser
580										585										590																											
Gly	Asn	Ile	Ser	Gly	Phe	Ile	Arg	Arg	Leu	Phe	Leu	Gln	Leu	Met	Leu	Gly	Asn	Ile	Ser	Gly	Phe	Ile	Arg	Arg	Leu	Phe	Leu	Gln	Leu	Met	Leu	Gly	Asn	Ile	Ser	Gly	Phe	Ile	Arg	Arg	Leu	Phe	Leu	Gln	Leu	Met	Leu
595										600										605																											
Glu	Asp	Glu	Lys	Val	Thr	Met	Phe	Leu	Gln	Ser	Pro	Cys	Pro	Leu	Tyr	Glu	Asp	Glu	Lys	Val	Thr	Met	Phe	Leu	Gln	Ser	Pro	Cys	Pro	Leu	Tyr	Glu	Asp	Glu	Lys	Val	Thr	Met	Phe	Leu	Gln	Ser	Pro	Cys	Pro	Leu	Tyr
610										615										620																											
Lys	Gly	Arg	Ile	Asn	Ala	Thr	Ser	His	Val	Ile	Gln	His	Pro	Met	Tyr	Lys	Gly	Arg	Ile	Asn	Ala	Thr	Ser	His	Val	Ile	Gln	His	Pro	Met	Tyr	Lys	Gly	Arg	Ile	Asn	Ala	Thr	Ser	His	Val	Ile	Gln	His	Pro	Met	Tyr
625										630										635																											
Gly	Ala	Gly	His	Lys	Phe	Arg	Thr	Leu	His	Leu	Pro	Val	Ser	Thr	Thr	Gly	Ala	Gly	His	Lys	Phe	Arg	Thr	Leu	His	Leu	Pro	Val	Ser	Thr	Thr	Gly	Ala	Gly	His	Lys	Phe	Arg	Thr	Leu	His	Leu	Pro	Val	Ser	Thr	Thr
645										650										655																											
Leu	Ser	Asp	Val	Leu	Asp	Arg	Val	Ser	Asp	Thr	Pro	Ser	Ile	Thr	Ala	Leu	Ser	Asp	Val	Leu	Asp	Arg	Val	Ser	Asp	Thr	Pro	Ser	Ile	Thr	Ala	Leu	Ser	Asp	Val	Leu	Asp	Arg	Val	Ser	Asp	Thr	Pro	Ser	Ile	Thr	Ala
660										665										670																											
Lys	Leu	Ile	Ser	Glu	Gln	Lys	Asp	Asp	Lys	Glu	Lys	Lys	Asn	His	Glu	Lys	Leu	Ile	Ser	Glu	Gln	Lys	Asp	Asp	Lys	Glu	Lys	Lys	Asn	His	Glu	Lys	Leu	Ile	Ser	Glu	Gln	Lys	Asp	Asp	Lys	Glu	Lys	Lys	Asn	His	Glu
675										680										685																											
Glu	Lys	Glu	Lys	Val	Lys	Ala	Glu	Asn	Gly	Phe	Gln	Asp	Asn	Tyr	Ser	Glu	Lys	Glu	Lys	Val	Lys	Ala	Glu	Asn	Gly	Phe	Gln	Asp	Asn	Tyr	Ser	Glu	Lys	Glu	Lys	Val	Lys	Ala	Glu	Asn	Gly	Phe	Gln	Asp	Asn	Tyr	Ser
690										695										700																											
Val	Val	Val	Ala	Ser	Gly	Leu	Lys	Ser	Gln	Ser	Lys	Arg	Ala	Val	Ser	Val	Val	Val	Ala	Ser	Gly	Leu	Lys	Ser	Gln	Ser	Lys	Arg	Ala	Val	Ser	Val	Val	Val	Ala	Ser	Gly	Leu	Lys	Ser	Gln	Ser	Lys	Arg	Ala	Val	Ser
705										710										715																											
Ala	Thr	Pro	Pro	Arg	Pro	Pro	Ser	Arg	Arg	Gly	Arg	Thr	Ile	Pro	Asp	Ala	Thr	Pro	Pro	Arg	Pro	Pro	Ser	Arg	Arg	Gly	Arg	Thr	Ile	Pro	Asp	Ala	Thr	Pro	Pro	Arg	Pro	Pro	Ser	Arg	Arg	Gly	Arg	Thr	Ile	Pro	Asp
725										730										735																											
Lys	Ile	Gly	Ser	Thr	Ser	Gly	Ala	Glu	Ala	Ala	Asn	Lys	Ile	Ile	Thr	Lys	Ile	Gly	Ser	Thr	Ser	Gly	Ala	Glu	Ala	Ala	Asn	Lys	Ile	Ile	Thr	Lys	Ile	Gly	Ser	Thr	Ser	Gly	Ala	Glu	Ala	Ala	Asn	Lys	Ile	Ile	Thr
740										745										750																											
Val	Pro	Val	Phe	His	Leu	Phe	His	Lys	Leu	Leu	Ala	Gly	Gln	Pro	Leu	Val	Pro	Val	Phe	His	Leu	Phe	His	Lys	Leu	Leu	Ala	Gly	Gln	Pro	Leu	Val	Pro	Val	Phe	His	Leu	Phe	His	Lys	Leu	Leu	Ala	Gly	Gln	Pro	Leu
755										760										765																											
Pro	Ala	Glu	Met	Thr	Leu	Ala	Gln	Leu	Leu	Thr	Leu	Leu	Tyr	Asp	Arg	Pro	Ala	Glu	Met	Thr	Leu	Ala	Gln	Leu	Leu	Thr	Leu	Leu	Tyr	Asp	Arg	Pro	Ala	Glu	Met	Thr	Leu	Ala	Gln	Leu	Leu	Thr	Leu	Leu	Tyr	Asp	Arg
770										775										780																											
Lys	Leu	Pro	Gln	Gly	Tyr	Arg	Ser	Ile	Asp	Leu	Thr	Val	Lys	Leu	Gly	Lys	Leu	Pro	Gln	Gly	Tyr	Arg	Ser	Ile	Asp	Leu	Thr	Val	Lys	Leu	Gly	Lys	Leu	Pro	Gln	Gly	Tyr	Arg	Ser	Ile	Asp	Leu	Thr	Val	Lys	Leu	Gly
785										790										795																											
Ser	Arg	Val	Ile	Thr	Asp	Pro	Ser	Leu	Ser	Lys	Thr	Asp	Ser	Tyr	Lys	Ser	Arg	Val	Ile	Thr	Asp	Pro	Ser	Leu	Ser	Lys	Thr	Asp	Ser	Tyr	Lys	Ser	Arg	Val	Ile	Thr	Asp	Pro	Ser	Leu	Ser	Lys	Thr	Asp	Ser	Tyr	Lys
805										810										815																											
Arg	Leu	His	Pro	Glu	Lys	Asp	His	Gly	Asp	Leu	Leu	Ala	Ser	Cys	Pro	Arg	Leu	His	Pro	Glu	Lys	Asp	His	Gly	Asp	Leu	Leu	Ala	Ser	Cys	Pro	Arg	Leu	His	Pro	Glu	Lys	Asp	His	Gly	Asp	Leu	Leu	Ala	Ser	Cys	Pro
820										825										830																											
Glu	Asp	Glu	Ala	Leu	Thr	Pro	Gly	Asp	Glu	Cys	Met	Asp	Gly	Ile	Leu	Glu	Asp	Glu	Ala	Leu	Thr	Pro	Gly	Asp	Glu	Cys	Met	Asp	Gly	Ile	Leu	Glu	Asp	Glu	Ala	Leu	Thr	Pro	Gly	Asp	Glu	Cys	Met	Asp	Gly	Ile	Leu
835										840										845																											
Asp	Glu	Ser	Leu	Leu	Glu	Thr	Cys	Pro	Ile	Gln	Ser	Pro	Leu	Gln	Val	Asp	Glu	Ser	Leu	Leu	Glu	Thr	Cys	Pro	Ile	Gln	Ser	Pro	Leu	Gln	Val	Asp	Glu	Ser	Leu	Leu	Glu	Thr	Cys	Pro	Ile	Gln	Ser	Pro	Leu	Gln	Val
850										855										860																											
Phe	Ala	Gly	Met	Gly	Gly	Leu	Ala	Leu	Ile	Ala	Glu	Arg	Leu	Pro	Met	Phe	Ala	Gly	Met	Gly	Gly	Leu	Ala	Leu	Ile	Ala	Glu	Arg	Leu	Pro	Met	Phe	Ala	Gly	Met	Gly	Gly	Leu	Ala	Leu	Ile	Ala	Glu	Arg	Leu	Pro	Met
865										870										875																											
Leu	Tyr	Pro	Glu	Val	Ile	Gln	Gln	Val	Ser	Ala	Pro	Val	Val	Thr	Ser	Leu	Tyr	Pro	Glu	Val	Ile	Gln	Gln	Val	Ser	Ala	Pro	Val	Val	Thr	Ser	Leu	Tyr	Pro	Glu	Val	Ile	Gln	Gln	Val	Ser	Ala	Pro	Val	Val	Thr	Ser
885										890										895																											
Thr	Thr	Gln	Glu	Lys	Pro	Lys	Asp	Ser	Asp	Gln	Phe	Glu	Trp	Val	Thr	Thr	Thr	Gln	Glu	Lys	Pro	Lys	Asp	Ser	Asp	Gln	Phe	Glu	Trp	Val	Thr	Thr	Thr	Gln	Glu	Lys	Pro	Lys	Asp	Ser	Asp	Gln	Phe	Glu	Trp	Val	Thr
900										905										910																											
Ile	Glu	Gln	Ser	Gly	Glu	Leu	Val	Tyr	Glu	Ala	Pro	Glu	Thr	Val	Ala	Ile	Glu	Gln	Ser	Gly	Glu	Leu	Val	Tyr	Glu	Ala	Pro	Glu	Thr	Val	Ala	Ile	Glu	Gln	Ser	Gly	Glu	Leu	Val	Tyr	Glu	Ala	Pro	Glu	Thr	Val	Ala
915										920										925																											
Ala	Glu	Pro	Pro	Pro	Ile	Lys	Ser	Ala	Val	Gln	Thr	Met	Ser	Pro	Ile	Ala	Glu	Pro	Pro	Pro	Ile	Lys	Ser	Ala	Val	Gln	Thr	Met	Ser	Pro	Ile	Ala	Glu	Pro	Pro	Pro	Ile	Lys	Ser	Ala	Val	Gln	Thr	Met	Ser	Pro	Ile



930	935	940
Pro Ala His Ser Leu	Ala Ala Phe Gly Leu	Phe Leu Arg Leu Pro Gly
945	950	955
Tyr Ala Glu Val Leu	Leu Lys Glu Arg Lys	His Ala Gln Cys Leu Leu
965	970	975
Arg Leu Val Leu Gly	Val Thr Asp Asp Gly	Glu Gly Ser His Ile Leu
980	985	990
Gln Ser Pro Ser Ala	Asn Val Leu Pro Thr	Leu Pro Phe His Val Leu
995	1000	1005
Arg Ser Leu Phe Ser	Thr Thr Pro Leu Thr	Thr Asp Asp Gly Val Leu
1010	1015	1020
Leu Arg Arg Met Ala	Leu Glu Ile Gly Ala	Leu His Leu Ile Leu Val
1025	1030	1035
Cys Leu Ser Ala Leu	Ser His His Ser Pro	Arg Val Pro Asn Ser Ser
1045	1050	1055
Val Asn Gln Thr Glu	Pro Gln Val Ser Ser	Ser His Asn Pro Thr Ser
1060	1065	1070
Thr Glu Glu Gln Gln	Leu Tyr Trp Ala Lys	Gly Thr Gly Phe Gly Thr
1075	1080	1085
Gly Ser Thr Ala Ser	Gly Trp Asp Val Glu	Gln Ala Leu Thr Lys Gln
1090	1095	1100
Arg Leu Glu Glu Glu	His Val Thr Cys Leu	Leu Gln Val Leu Ala Ser
1105	1110	1115
Tyr Ile Asn Pro Val	Ser Ser Ala Val Asn	Gly Glu Ala Gln Ser Ser
1125	1130	1135
His Glu Thr Arg Gly	Gln Asn Ser Asn Ala	Leu Pro Ser Val Leu Leu
1140	1145	1150
Glu Leu Leu Ser Gln	Ser Cys Leu Ile Pro	Ala Met Ser Ser Tyr Leu
1155	1160	1165
Arg Asn Asp Ser Val	Leu Asp Met Ala Arg	His Val Pro Leu Tyr Arg
1170	1175	1180
Ala Leu Leu Glu Leu	Leu Arg Ala Ile Ala	Ser Cys Ala Ala Met Val
1185	1190	1195
Pro Leu Leu Leu Pro	Leu Ser Thr Glu Asn	Gly Glu Glu Glu Glu
1205	1210	1215
Gln Ser Glu Cys Gln	Thr Ser Val Gly Thr	Leu Leu Ala Lys Met Lys
1220	1225	1230
Thr Cys Val Asp Thr	Tyr Thr Asn Arg Leu	Arg Ser Lys Arg Glu Asn
1235	1240	1245
Val Lys Thr Gly Val	Lys Pro Asp Ala Ser	Asp Gln Glu Pro Glu Gly
1250	1255	1260
Leu Thr Leu Leu Val	Pro Asp Ile Gln Lys	Thr Ala Glu Ile Val Tyr
1265	1270	1275
Ala Ala Thr Thr Ser	Leu Arg Arg Ala Asn	Gln Glu Lys Lys Leu Gly
1285	1290	1295
Glu Tyr Ser Lys Lys	Ala Ala Met Lys Pro	Lys Pro Leu Ser Val Leu
1300	1305	1310
Lys Ser Leu Glu Glu	Lys Tyr Val Ala Val	Met Lys Lys Leu Gln Phe
1315	1320	1325
Asp Thr Phe Glu Met	Val Ser Glu Asp Glu	Asp Gly Lys Leu Gly Phe
1330	1335	1340
Lys Val Asn Tyr His	Tyr Met Ser Gln Val	Lys Asn Ala Asn Asp Ala
1345	1350	1355
Asn Ser Ala Ala Arg	Ala Arg Arg Leu Ala	Gln Glu Ala Val Thr Leu



1365 1370 1375  
 Ser Thr Ser Leu Pro Leu Ser Ser Ser Ser Val Phe Val Arg Cys  
 1380 1385 1390  
 Asp Glu Glu Arg Leu Asp Ile Met Lys Val Leu Ile Thr Gly Pro Ala  
 1395 1400 1405  
 Asp Thr Pro Tyr Ala Asn Gly Cys Phe Glu Phe Asp Val Tyr Phe Pro  
 1410 1415 1420  
 Gln Asp Tyr Pro Ser Ser Pro Pro Leu Val Asn Leu Glu Thr Thr Gly  
 1425 1430 1435 1440  
 Gly His Ser Val Arg Phe Asn Pro Asn Leu Tyr Asn Asp Gly Lys Val  
 1445 1450 1455  
 Cys Leu Ser Ile Leu Asn Thr Trp His Gly Arg Pro Glu Glu Lys Trp  
 1460 1465 1470  
 Asn Pro Gln Thr Ser Ser Phe Leu Gln Val Leu Val Ser Val Gln Ser  
 1475 1480 1485  
 Leu Ile Leu Val Ala Glu Pro Tyr Phe Asn Glu Pro Gly Tyr Glu Arg  
 1490 1495 1500  
 Ser Arg Gly Thr Pro Ser Gly Thr Gln Ser Ser Arg Glu Tyr Asp Gly  
 1505 1510 1515 1520  
 Asn Ile Arg Gln Ala Thr Val Lys Trp Ala Met Leu Glu Gln Ile Arg  
 1525 1530 1535  
 Asn Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu  
 1540 1545 1550  
 Lys Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile  
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 Gln Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His  
 1570 1575 1580  
 Ala Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu  
 1585 1590 1595 1600  
 Lys Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Asp Ala Pro  
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 Glu Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp  
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&lt;210&gt; 5877

&lt;211&gt; 683

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5877

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<210> 5878

<211> 227

<212> PRT

<213> Homo sapiens

<400> 5878

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Leu	Val	Ser	Gly	Gly	Asp	Asp	Arg	Arg	Val	Leu	Leu	Trp	His	Met	Glu
			85					90					95		
Gln	Ala	Ile	His	Ser	Arg	Val	Lys	Pro	Ile	Gln	Leu	Lys	Gly	Glu	His
		100					105					110			
His	Ser	Asn	Ile	Phe	Cys	Leu	Ala	Phe	Asn	Ser	Gly	Asn	Thr	Lys	Val
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Ser	Val	Ser	Pro	Val	Asn	Asp	Asn	Ile	Phe	Ala	Ser	Ser	Ser	Asp	Asp
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Gly	Arg	Val	Leu	Ile	Trp	Asp	Ile	Arg	Glu	Ser	Pro	His	Gly	Glu	Pro
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<210> 5879

<211> 1555

<212> DNA

<213> Homo sapiens



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 <211> 185  
 <212> PRT  
 <213> Homo sapiens

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 Gly Ser Gln Lys Lys Lys Arg Thr Ile Leu Gln Phe Leu Thr Asn Tyr  
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 Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln Arg Glu Met  
 50 55 60  
 Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln  
 65 70 75 80  
 His Gly Pro Tyr Gly Ala Gly Ala Phe Phe Ile Leu Lys Gln Gly Gly  
 85 90 95  
 Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly  
 100 105 110  
 His Phe Ser Gln Glu Phe Trp Asn Phe Cys Glu Val Pro Val Glu Ala  
 115 120 125  
 Val Asp Ala Gly Asp Cys Asp Ile Asn Tyr Glu Gly Leu Asp Asn Leu  
 130 135 140  
 Arg Thr Ser Ala Gly Trp Thr Ser Arg Thr Ser Leu Pro Cys Pro Thr  
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<210> 5881  
 <211> 327  
 <212> DNA  
 <213> Homo sapiens

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<210> 5882  
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 <212> PRT



<213> Homo sapiens

<400> 5882

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Ala Lys Glu Asn Met Val Thr Phe Ser His Thr Leu Pro Arg Ala Ser
          35          40          45
Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
          50          55          60
Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
65          70          75          80
Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro
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Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa
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<210> 5883

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5883

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<210> 5884

<211> 71

<212> PRT

<213> Homo sapiens

<400> 5884

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Phe	Ser	Thr	Arg	Thr	Val	Met	Leu	Gly	Thr	Ala	Ala	Val	Lys	Ala	Gln
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Ile	Trp	Asp	Thr	Ala	Gly	Val									
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&lt;210&gt; 5885

&lt;211&gt; 1905

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5885

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 1905

&lt;210&gt; 5886

&lt;211&gt; 265

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5886

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 20 25 30  
 Gly Ala Gly Pro Leu Tyr Ser His Leu Pro Thr Ser Pro Leu Gln  
 35 40 45  
 Lys Ala Leu Leu Ala Ala Gly Ser Ala Ala Met Ala Leu Tyr Asn Pro  
 50 55 60  
 Tyr Arg His Asp Met Val Ala Val Leu Gly Glu Thr Thr Gly His Arg  
 65 70 75 80  
 Thr Leu Lys Val Leu Arg Asp Gln Met Arg Arg Asp Pro Glu Gly Ala  
 85 90 95  
 Gln Ile Leu Gln Glu Arg Pro Arg Ile Ser Thr Ser Thr Leu Asp Leu  
 100 105 110  
 Gly Lys Leu Gln Ser Leu Pro Glu Gly Ser Leu Gly Arg Glu Tyr Leu  
 115 120 125  
 Arg Phe Leu Asp Val Asn Arg Val Ser Pro Asp Thr Arg Ala Pro Thr  
 130 135 140  
 Arg Phe Val Asp Asp Glu Glu Leu Ala Tyr Val Ile Gln Arg Tyr Arg  
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 Glu Val His Asp Met Leu His Thr Leu Leu Gly Met Pro Thr Asn Ile  
 165 170 175  
 Leu Gly Glu Ile Val Val Lys Trp Phe Glu Ala Val Gln Thr Gly Leu



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Gln	Ser	Leu	Gln	Val	Leu	Val	Ser	Glu	Leu	Ile	Pro	Trp	Ala	Val	Gln
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Trp	Glu	Gln	Ser	Leu	Arg	Ala	Leu	Arg	Glu	Glu	Leu	Gly	Ile	Thr	Ala
				245					250					255	
Pro	Pro	Met	His	Val	Gln	Gly	Leu	Ala							
			260				265								

&lt;210&gt; 5887

&lt;211&gt; 3779

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5887

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<210> 5888

<211> 166

<212> PRT

<213> Homo sapiens

<400> 5888

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<400> 5889
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<211> 118

<212> PRT

<213> Homo sapiens

<400> 5890

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			20				25					30			
Glu	Cys	Ser	Gly	Thr	Ile	Thr	Ala	His	Cys	Ser	Leu	Asp	Phe	Pro	Gly
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Ser	Ser	His	Ser	Pro	Thr	Ser	Ala	Ser	Gln	Ala	Val	Gly	Thr	Thr	Gly
	50				55					60					
Glu	Glu	Arg	Gln	Gln	His	Gly	Glu	Cys	Pro	Val	Pro	Thr	Pro	Trp	Lys







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<210> 5892

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5892

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			20					25					30		
Phe	Arg	Asn	Gly	Ala	Val	Tyr	Gly	Ala	Lys	Ile	Arg	Ala	Pro	His	Ala
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	50					55					60				
Trp	Ala	Ile	Leu	Gln	Ala	Thr	Tyr	Ile	His	Ser	Trp	Asn	Leu	Ala	Arg
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Gly	Lys	Thr	Tyr	Pro	Ala	His	Ala	Phe	Leu	Ala	Ala	Phe	Leu	Gly	Gly
			100					105					110		
Ile	Leu	Val	Phe	Gly	Glu	Asn	Asn	Asn	Ile	Asn	Ser	Gln	Ile	Asn	Met
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Tyr	Leu	Leu	Ser	Arg	Val	Leu	Phe	Ala	Leu	Ser	Arg	Leu	Ala	Val	Glu
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Lys	Gly	Tyr	Ile	Pro	Glu	Pro	Arg	Trp	Asp	Pro	Phe	Pro	Leu	Leu	Thr
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<210> 5893

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 5893

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&lt;210&gt; 5894

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5894

Met Val Trp Pro Ala Leu Trp Glu Leu Tyr Arg Glu Leu Gly Leu Phe



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Arg Arg Lys Lys Lys Lys Ala Lys Arg Thr Thr Asn Trp Lys Ile Ile
      35           40           45
Thr Asp Arg Pro Gly Phe His Asp Glu Ser Ala Ile Tyr Pro Val Gly
      50           55           60
Tyr Cys Ser Thr Arg Ile Tyr Ala Ser Met Lys Cys Pro Asp Gln Lys
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Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe
      85           90           95
Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser
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Ala Asp Ala Cys His Ala Glu Leu Leu Arg Thr Ile Ser Thr Thr Met
      115          120          125
Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly
      130          135          140
Phe Ser His Pro Ala Ile His Asn Leu Ile Gln Ser Cys Pro Gly Ala
      145          150          155          160
Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro
      165          170          175
Gly Asp Gly Gln Leu Pro Glu Gly Leu Pro Glu Asn Asp Ala Ala Met
      180          185          190
Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp
      195          200          205
Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala
      210          215          220
Phe Val Ser Ser Tyr Gln Pro Met Tyr Leu Thr His Glu Pro Leu Val
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Gln Ser Ser Asp
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&lt;210&gt; 5895

&lt;211&gt; 2748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5895

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<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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Arg	Asp	Leu	Gly	Gly	Ser	Ser	Ala	Ala	Thr	Glu	Ala	Val	Ala	Ile	Leu
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Thr	Ala	Thr	Tyr	Pro	Val	Gly	His	Met	Pro	Tyr	Gly	Trp	Leu	Thr	Glu
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Ile	Arg	Ala	Val	Tyr	Pro	Ala	Phe	Asp	Lys	Asn	Asn	Pro	Ser	Asn	Lys
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			100					105					110		
Trp	Thr	Pro	Asn	Val	Ser	Glu	Lys	Ile	Leu	Ile	Asp	Ile	Ile	Gly	Val
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Ile	Ile	Val	Leu	Ile	Ala	Ser	Leu	Val	Val	Leu	Pro	Tyr	Leu	Gly	Val



	180		185		190										
His	Gly	Ala	Thr	Leu	Gly	Val	Gly	Ser	Leu	Leu	Ala	Gly	Phe	Val	Gly
	195				200						205				
Glu	Ser	Thr	Met	Val	Ala	Ile	Ala	Ala	Cys	Tyr	Val	Tyr	Arg	Lys	Gln
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Lys	Lys	Lys	Met	Glu	Asn	Glu	Ser	Ala	Thr	Glu	Gly	Glu	Asp	Ser	Ala
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Arg	Glu	Glu	Asn	Glu											
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&lt;210&gt; 5897

&lt;211&gt; 1930

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5897

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&lt;210&gt; 5898

&lt;211&gt; 242

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5898

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Cys	Phe	Ala	Phe	Val	His	Asp	Leu	Cys	Asp	Glu	Glu	Lys	Ser	Tyr	Pro
		100						105					110		
Val	Pro	Lys	Gly	Ser	Leu	Asp	Ile	Ile	Ile	Leu	Ile	Phe	Val	Leu	Ser
		115					120					125			
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130		135		140											
Leu	Leu	Lys	Pro	Gly	Gly	Met	Val	Leu	Leu	Arg	Asp	Tyr	Gly	Arg	Tyr
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&lt;210&gt; 5899

&lt;211&gt; 1589

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5899

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<210> 5900

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5900

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Ile	Pro	Thr	Ile	Ile	Arg	Asp	Glu	Glu	Leu	Lys	Thr	Arg	Gly	Phe	Gly
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Gly	Ile	Tyr	Gly	Val	Gly	Lys	Ala	Ala	Leu	His	Pro	Pro	Ala	Leu	Ala
			50				55				60				
Val	Leu	Ser	His	Thr	Pro	Asp	Gly	Ala	Thr	Gln	Thr	Ile	Ala	Trp	Val
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Gly	Lys	Gly	Ile	Val	Tyr	Asp	Thr	Gly	Gly	Leu	Ser	Ile	Lys	Gly	Lys
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Thr	Thr	Met	Pro	Gly	Met	Lys	Arg	Asp	Cys	Gly	Gly	Ala	Ala	Ala	Val
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Tyr	Ala	Cys	Lys	Asp	Leu	Gly	Ala	Asp	Ile	Ile	Leu	Asp	Met	Ala	Thr
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225	230	235
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Arg Asp Ser Lys Arg Arg Arg Leu	Val	
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&lt;210&gt; 5901

&lt;211&gt; 984

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5901

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<210> 5902

<211> 328

<212> PRT

<213> Homo sapiens

<400> 5902

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Ser	Pro	Arg	Phe	Arg	Ala	Thr	Ile	Asp	Glu	Val	Glu	Thr	Asp	Val	Val
			20					25					30		
Glu	Ile	Glu	Ala	Lys	Leu	Asp	Lys	Leu	Val	Lys	Leu	Cys	Ser	Gly	Met
		35					40					45			
Val	Glu	Ala	Gly	Lys	Ala	Tyr	Val	Ser	Thr	Ser	Arg	Leu	Phe	Val	Ser
	50					55					60				
Gly	Val	Arg	Asp	Leu	Ser	Gln	Gln	Cys	Gln	Gly	Asp	Thr	Val	Ile	Ser
65				70						75				80	
Glu	Cys	Leu	Gln	Arg	Phe	Ala	Asp	Ser	Leu	Gln	Glu	Val	Val	Asn	Tyr
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His	Met	Ile	Leu	Phe	Asp	Gln	Ala	Gln	Arg	Ser	Val	Arg	Gln	Gln	Leu
			100					105					110		
Gln	Ser	Phe	Val	Lys	Glu	Asp	Val	Arg	Lys	Phe	Lys	Glu	Thr	Lys	Lys
		115				120						125			
Gln	Phe	Asp	Lys	Val	Arg	Glu	Asp	Leu	Glu	Leu	Ser	Leu	Val	Arg	Asn
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Ala	Leu	Thr	Leu	Thr	Arg	Lys	Cys	Phe	Arg	His	Leu	Ala	Leu	Asp	Tyr
			165					170					175		
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		180					185					190			
Asp	Ser	Met	Leu	Ser	Phe	Met	His	Ala	Gln	Ser	Ser	Phe	Phe	Gln	Gln
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Gly	Tyr	Ser	Leu	Leu	His	Gln	Leu	Asp	Pro	Tyr	Met	Lys	Lys	Leu	Ala
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Ala	Glu	Leu	Asp	Gln	Leu	Val	Ile	Asp	Ser	Ala	Val	Glu	Lys	Arg	Glu
225				230						235				240	
Met	Glu	Arg	Lys	His	Ala	Ala	Ile	Gln	Gln	Arg	Thr	Leu	Arg	Asp	Phe
			245					250					255		
Ser	Tyr	Asp	Glu	Ser	Lys	Val	Glu	Phe	Asp	Val	Asp	Ala	Pro	Ser	Gly
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Val	Val	Met	Glu	Gly	Tyr	Leu	Phe	Lys	Arg	Ala	Ser	Asn	Xaa	Phe	Lys
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Thr	Trp	Asn	Arg	Arg	Trp	Phe	Ser	Ile	Gln	Asn	Ser	Gln	Leu	Val	Tyr
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Gln	Lys	Lys	Leu	Lys	Asp	Ala	Leu	Thr	Val	Val	Val	Asp	Asp	Leu	Arg
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Leu	Cys	Ser	Val	Lys	Pro	Cys	Glu								



325

&lt;210&gt; 5903

&lt;211&gt; 3734

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5903

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<210> 5904

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5904

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Pro	Asp	Asp	Tyr	Phe	Leu	Leu	Arg	Trp	Leu	Arg	Ala	Arg	Ser	Phe	Asp
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Leu	Gln	Lys	Ser	Glu	Ala	Met	Leu	Arg	Lys	His	Val	Glu	Phe	Arg	Lys
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Gln	Gln	Tyr	Leu	Ser	Gly	Gly	Met	Cys	Gly	Tyr	Asp	Leu	Asp	Gly	Cys
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Pro	Val	Trp	Tyr	Asp	Ile	Ile	Gly	Pro	Leu	Asp	Ala	Lys	Gly	Leu	Leu
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Leu	Ser	Ala	Ser	Lys	Gln	Asp	Met	Ile	Arg	Lys	Gly	Ile	Lys	Val	Cys
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<211> 2280

<212> DNA

<213> Homo sapiens

<400> 5905

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&lt;210&gt; 5906

&lt;211&gt; 215

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 5906

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 Val Ser Lys Phe Arg Val Ile Phe Ala Gly Ala Gln Lys Asn Val Gly  
 35 40 45  
 Ser Ala Gly Val Thr Val Val Ile Val Arg Asp Asp Leu Leu Gly Phe  
 50 55 60  
 Ala Leu Arg Glu Cys Pro Ser Val Leu Glu Tyr Lys Val Gln Ala Gly  
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 Asn Ser Ser Leu Tyr Asn Thr Pro Pro Cys Phe Ser Ile Tyr Val Met  
 85 90 95  
 Gly Leu Val Leu Glu Trp Ile Lys Asn Asn Gly Gly Ala Ala Ala Met  
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&lt;211&gt; 1989

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5907

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&lt;210&gt; 5908

&lt;211&gt; 454

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5908

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Pro Asp Ser Arg Ala Leu His Tyr Met Lys Lys Leu Tyr Lys Thr Tyr
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Ala Thr Lys Glu Gly Ile Pro Lys Ser Asn Arg Ser His Leu Tyr Asn
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&lt;211&gt; 899

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5910

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Cys Leu Gln Lys Ile Pro Gln Glu Arg Pro Thr Ser Ala Glu Leu Leu
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 305          310          315          320
Leu Asn Glu Ser Gln Glu Asp Glu Glu Asp Ser Glu His Gly Thr Ser
 325          330          335
Leu Asn Arg Glu Met Asp Ser Leu Gly Ser Asn His Ser Ile Pro Ser
 340          345          350
Met Ser Val Ser Thr Gly Ser Gln Ser Ser Ser Val Asn Ser Met Gln
 355          360          365
Glu Val Met Asp Glu Ser Ser Ser Glu Leu Val Met Met His Asp Asp
 370          375          380
Glu Ser Thr Ile Asn Ser Ser Ser Ser Val Val His Lys Lys Asp His

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385          390          395          400
Val Phe Ile Arg Asp Glu Ala Gly His Gly Asp Pro Arg Pro Glu Pro
          405          410          415
Arg Pro Thr Gln Ser Val Gln Ser Gln Ala Leu His Tyr Arg Asn Arg
          420          425          430
Glu Arg Phe Ala Thr Ile Lys Ser Ala Ser Leu Val Thr Arg Gln Ile
          435          440          445
His Glu His Glu Gln Glu Asn Glu Leu Arg Glu Gln Met Ser Gly Tyr
          450          455          460
Lys Arg Met Arg Arg Gln His Gln Lys Gln Leu Ile Ala Leu Glu Asn
465          470          475          480
Lys Leu Lys Ala Glu Met Asp Glu His Arg Leu Lys Leu Gln Lys Glu
          485          490          495
Val Glu Thr His Ala Asn Asn Ser Ser Ile Glu Leu Glu Lys Leu Ala
          500          505          510
Lys Lys Gln Val Ala Ile Ile Glu Lys Glu Ala Lys Val Ala Ala Ala
          515          520          525
Asp Glu Lys Lys Phe Gln Gln Gln Ile Leu Ala Gln Gln Lys Lys Asp
          530          535          540
Leu Thr Thr Phe Leu Glu Ser Gln Lys Lys Gln Tyr Lys Ile Cys Lys
545          550          555          560
Glu Lys Ile Lys Glu Glu Met Asn Glu Asp His Ser Thr Pro Lys Lys
          565          570          575
Glu Lys Gln Glu Arg Ile Phe Lys His Lys Glu Asn Leu Gln His Thr
          580          585          590
Gln Ala Glu Glu Glu Ala His Leu Leu Thr Ser Thr Gly Asp Trp Thr
          595          600          605
Thr Thr Lys Asn Cys Arg Phe Phe Lys Arg Lys Ile Met Ile Lys Arg
          610          615          620
His Glu Val Glu Gln Gln Asn Ile Arg Glu Glu Leu Asn Lys Lys Arg
625          630          635          640
Thr Met Lys Glu Met Glu His Ala Met Leu Ile Arg His Asp Glu Ser
          645          650          655
Thr Arg Glu Leu Glu Tyr Arg Gln Leu His Thr Leu Gln Lys Leu Arg
          660          665          670
Met Asp Leu Ile Arg Leu Gln His Gln Thr Glu Leu Glu Asn Gln Leu
          675          680          685
Glu Tyr Asn Lys Arg Arg Glu Arg Glu Leu His Arg Lys His Val Met
          690          695          700
Glu Leu Arg Gln Gln Pro Lys Asn Leu Lys Ala Met Glu Met Gln Ile
705          710          715          720
Lys Lys Gln Phe Gln Asp Thr Cys Lys Val Gln Thr Lys Gln Tyr Lys
          725          730          735
Ala Leu Lys Asn His Gln Leu Glu Val Thr Pro Lys Asn Glu His Lys
          740          745          750
Thr Ile Leu Lys Thr Leu Lys Asp Glu Gln Thr Arg Lys Leu Ala Ile
          755          760          765
Leu Ala Glu Gln Tyr Glu Gln Ser Ile Asn Glu Met Met Ala Ser Gln
          770          775          780
Ala Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys Gln Ala Leu Arg
785          790          795          800
Leu Gln Leu Gln Gln Glu Met Glu Leu Leu Asn Ala Tyr Gln Ser Lys
          805          810          815
Ile Lys Met Gln Thr Glu Ala Gln His Glu Arg Glu Leu Gln Lys Leu

```



820					825					830					
Glu	Gln	Arg	Val	Ser	Leu	Arg	Arg	Ala	His	Leu	Glu	Gln	Lys	Ile	Glu
835					840					845					
Glu	Glu	Leu	Ala	Ala	Leu	Gln	Lys	Glu	Arg	Ser	Glu	Arg	Ile	Lys	Asn
850					855					860					
Leu	Leu	Glu	Arg	Gln	Glu	Arg	Glu	Ile	Glu	Thr	Phe	Asp	Met	Glu	Ser
865					870					875					
Leu	Arg	Met	Gly	Phe	Gly	Asn	Leu	Val	Thr	Leu	Asp	Phe	Pro	Lys	Glu
885					890					895					
Asp	Tyr	Arg													

```
<210> 5911
<211> 645
<212> DNA
<213> Homo sapiens
```

```

<400> 5911
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120
cccgacggtg gtactccagc aggtacttca agtccagctt cttcatcttc ccttctcaac
180
agacttcagc ttgatgatga tattgatggg gagactagag atctcttcgt tatagtcgat
240
gatcccaaga agcatgtgtg tacaatggag acttacatca cctataggat caccaccaa
300
agtactcggg tggagtttga cctgccagaa tattctgttc gtcgaagata ccaggatttt
360
gactgggtga ggagcaaact ggaagaatcc cagccactc atctcattcc ccctcttccc
420
gagaagtttg tggtaaaagg tgttggtggat cgtttttcag aagagtttgt ggagaccaga
480
agaaaagctt tggataaatt tctaaaaaga attacggacc atcctgtgct gtctttcaat
540
gaacacttta atattttcct tactgctaag gacctgaacg cctacaagaa gcaagggata
600
gcattgctga ccagaatggg cgagtcagtc aagcacgtca cgcgt
645

```

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<210> 5912
<211> 211
<212> PRT
<213> Homo sapiens
```

```

<400> 5912
Asp Gly Lys  Pro  Glu  Ile  Pro  Val  Leu  Cys  Phe  Ala  His  Ala  Gly  Ser
 1              5              10              15
Cys Arg  Pro  Glu  Leu  Phe  Leu  Phe  Gly  Asn  Leu  Gly  Ser  Ser  Ala  Glu
              20              25              30
Asp Leu Ile  Leu  Pro  Asp  Gly  Gly  Thr  Pro  Ala  Gly  Thr  Ser  Ser  Pro
      35              40              45
Ala Ser Ser  Ser  Ser  Leu  Leu  Asn  Arg  Leu  Gln  Leu  Asp  Asp  Asp  Ile

```



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      50              55              60
Asp Gly Glu Thr Arg Asp Leu Phe Val Ile Val Asp Asp Pro Lys Lys
65              70              75              80
His Val Cys Thr Met Glu Thr Tyr Ile Thr Tyr Arg Ile Thr Thr Lys
      85              90              95
Ser Thr Arg Val Glu Phe Asp Leu Pro Glu Tyr Ser Val Arg Arg Arg
      100             105             110
Tyr Gln Asp Phe Asp Trp Leu Arg Ser Lys Leu Glu Glu Ser Gln Pro
      115             120             125
Thr His Leu Ile Pro Pro Leu Pro Glu Lys Phe Val Val Lys Gly Val
      130             135             140
Val Asp Arg Phe Ser Glu Glu Phe Val Glu Thr Arg Arg Lys Ala Leu
145             150             155             160
Asp Lys Phe Leu Lys Arg Ile Thr Asp His Pro Val Leu Ser Phe Asn
      165             170             175
Glu His Phe Asn Ile Phe Leu Thr Ala Lys Asp Leu Asn Ala Tyr Lys
      180             185             190
Lys Gln Gly Ile Ala Leu Leu Thr Arg Met Gly Glu Ser Val Lys His
      195             200             205
Val Thr Arg
      210

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&lt;210&gt; 5913

&lt;211&gt; 2495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5913

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60
catttttatag ggagaaaacc aagccactgg ccccggtaca cagcaagtta gtagtaagac
120
tgagattcga accctgggtca aacagacttt ccattttggt ccaactgactc agtcttctct
180
tttacacttg aatcagactt ttagttttat tgtagttttt gagtccatag ctgtcttctc
240
gtactgtctt gactctttga ctaaactgat ttcacatctt taaaattatg ctttcctttt
300
aggctcattt ttagctcagc tgttgacagc tattttttaa tgtaacatga cataatatat
360
ttcctaaata atttaaaata atctagcttg agctgctctg aagggttagtc agttggtggt
420
gtgcatagag gtagagcctt cccccactct caaggatgct gtgaggggta ttcctaccat
480
gtggtgagtt gggagggttt cctgaggtcc ttttccatcc tgagactctg gttttccatt
540
ttgtttctca caggccaggg ctttgaccga cacttgtttg ctctgcggca tctggcagca
600
gcanaaggga tcatcttgcc tgagctctac ctggaccctg catacgggca gataaaccac
660
aatgtcctgt ccacgagcac actgagcagc ccagcagtga accntttagt gtttgccctt
720
gtggtctctg atgcttttgg tgttggttat gctgttcatt acaactggat aggtgcaat
780

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840  
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900  
aaagctacca tcacttcctc atcatgaaaa ctgggaggcc gggcatggtg gctcatgcct  
960  
gtaatcccag cattttgaga ggctgaggcg ggtggatcac ttgaggtcag gagtttgaga  
1020  
ccaacctggc caacatggtg aaaccttgtc tctactaaaa atacaaaaat tagctgggtg  
1080  
tggtggcatg tgcctataat cccagctact tgggaggttg aagcagaatt gcttgaacct  
1140  
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1260  
tgctattctg tgaaactaat cataagctgc ctaggcagcc agctacaggc ttgagcttta  
1320  
aattcatggt tttaaagcta aacgtaattt ccacttggga ctagatcaca actgaagata  
1380  
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1440  
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1500  
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1860  
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1920  
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1980  
agattccac agactcctgg gccttttcat catagtcagt ccagtccttc tcctgcagat  
2040  
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2100  
ggaaatcaac tggttcaagg ccccggcact caaactccac tattgtcttg aagttctcat  
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2220  
cacacagctt gcacttctgg accatggaag cactgccacg gcccccttc agtgccacac  
2280  
tgtccatcag ccggatgtac tgccacttgt ccgaaatctc accacagttg ccacatttca  
2340  
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2400



tggctttgag ttgcagcgcg attttcccca tggtagccct ctccgcccg tgctggctgc  
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 2495

<210> 5914  
 <211> 158  
 <212> PRT  
 <213> Homo sapiens

<400> 5914  
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 Cys Cys Glu Gly Tyr Ser Tyr His Val Val Ser Trp Glu Val Phe Leu  
 20 25 30  
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 35 40 45  
 Gly Gln Gly Phe Asp Arg His Leu Phe Ala Leu Arg His Leu Ala Ala  
 50 55 60  
 Ala Xaa Gly Ile Ile Leu Pro Glu Leu Tyr Leu Asp Pro Ala Tyr Gly  
 65 70 75 80  
 Gln Ile Asn His Asn Val Leu Ser Thr Ser Thr Leu Ser Ser Pro Ala  
 85 90 95  
 Val Asn Xaa Cys Arg Phe Ala Pro Val Val Ser Asp Ala Phe Gly Val  
 100 105 110  
 Gly Tyr Ala Val His Asp Asn Trp Ile Gly Cys Asn Val Ser Ser Tyr  
 115 120 125  
 Pro Gly Arg Asn Ala Arg Glu Phe Leu Gln Cys Val Glu Lys Ala Xaa  
 130 135 140  
 Glu Asp Met Phe Asp Ala Leu Glu Gly Lys Ser Ile Lys Ser  
 145 150 155

<210> 5915  
 <211> 457  
 <212> DNA  
 <213> Homo sapiens

<400> 5915  
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 gaaatggtac agcggattct cttgtcaaca cgagggttatg tcaacttcgt gaatgaagta  
 120  
 tttcaccagg catttttgtt gccttcctgt gagatagctg taacaagaaa agtagttcaa  
 180  
 gtgtacagaa agtggattct ccaggacaaa cctgtgttca tggaggagcc agatagaaaa  
 240  
 gatgttgccc aagaagatgc tgaaaaatta ggattttccg agactgatag caaggaggcc  
 300  
 tcactgaaa gttctggtca taaacgatct tccagttggg gacgcacata ctccttcaca  
 360  
 agtgcaatga gcagaggggtg tgtgacagag gaggaaaata caaatgtgaa agccggcgctc  
 420  
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 457



<210> 5916  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 5916  
 Tyr Arg Arg Leu Ser Asn Ser Ser Leu Cys Ser Ile Glu Glu Glu His  
 1 5 10 15  
 Arg Met Val Tyr Glu Met Val Gln Arg Ile Leu Leu Ser Thr Arg Gly  
 20 25 30  
 Tyr Val Asn Phe Val Asn Glu Val Phe His Gln Ala Phe Leu Leu Pro  
 35 40 45  
 Ser Cys Glu Ile Ala Val Thr Arg Lys Val Val Gln Val Tyr Arg Lys  
 50 55 60  
 Trp Ile Leu Gln Asp Lys Pro Val Phe Met Glu Glu Pro Asp Arg Lys  
 65 70 75 80  
 Asp Val Ala Gln Glu Asp Ala Glu Lys Leu Gly Phe Ser Glu Thr Asp  
 85 90 95  
 Ser Lys Glu Ala Ser Ser Glu Ser Ser Gly His Lys Arg Ser Ser Ser  
 100 105 110  
 Trp Gly Arg Thr Tyr Ser Phe Thr Ser Ala Met Ser Arg Gly Cys Val  
 115 120 125  
 Thr Glu Glu Glu Asn Thr Asn Val Lys Ala Gly Val Gln Ala Leu Leu  
 130 135 140  
 Gln Val Phe Leu Ala Asn Ser Ala  
 145 150

<210> 5917  
 <211> 3727  
 <212> DNA  
 <213> Homo sapiens

<400> 5917  
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 120  
 ccccatgccg cgcgccacag ggagccagga cctgtgcgca ggcccatgcg caagtccttc  
 180  
 tcccagcccg gcctgcgctc gctggccttt aggaaggagc tgcaggatgg gggcctccga  
 240  
 agcagcggct tcttcagctc cttcaggag agcgacattg agaaccacct cattagcgga  
 300  
 cacaatattg tgcagccac agatatcgag gaaaatcgaa ctatgctctt cagcattggc  
 360  
 cagtctgaag ttacctcat cagtcctgac accaaaaaa tagcattgga gaaaaatctt  
 420  
 aaggagatat ccttttgctc tcagggcac agacacgtgg accactttgg gtttatctgt  
 480  
 cgggagtctt ccggagggtg cggtttcat tttgtctgtt acgtgtttca gtgcacaaat  
 540  
 gaggctctgg ttgatgaaat tatgatgacc ctgaaacagg ccttcacggt ggccgcagtg  
 600



cagcagacag ctaaggcgcc agcccagctg tgtgagggt gccccctgca aagcctgcac  
660  
aagctctgtg agaggataga gggaatgaat tcttccaaaa caaaactaga actgcaaaaag  
720  
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780  
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840  
gaagagaaac agaaagaaca catccatatt ggggagatga agcagacatc gcagatggca  
900  
gcagagaata ttggaagtga attaccaccc agtgccactc gatttaggct agatatgctg  
960  
aaaaacaaag caaagagatc tttacagag tctttagaaa gtattttgtc cgggggtaat  
1020  
aaagccagag gcctgcagga acactccatc agtgtggatc tggatagctc cctgtctagt  
1080  
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1260  
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1320  
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1380  
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1440  
cggaggcatt cctggaggca gcagatattc ctccgagtag ccaccccgca gaaggcgtgc  
1500  
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1560  
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1620  
ctcgtgagct ccgagagctg tggcaaaggg ctattcttca acagatactg cntgcttaga  
1680  
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1740  
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1800  
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1860  
gttgggcaag gtgtgccacg tcatcaccga ggtgaaatct ggaaatttct agctgagcaa  
1920  
ttccacctta aacaccagtt tcccagcaaa cagcagccaa aggatgtgcc atacaaagaa  
1980  
ctcttaaagc agctgacttc ccagcagcat gcgattctta ttgacctgg gcgaaccttt  
2040  
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2100  
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2160  
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2220



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2280  
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2520  
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2580  
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2640  
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2700  
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2880  
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3120  
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3180  
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3240  
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3360  
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3600  
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3720  
aaaaaaa  
3727

&lt;210&gt; 5918



&lt;211&gt; 981

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5918

Ala Cys Gly Arg Val Thr Val Ala His Lys Lys Ala Pro Pro Ala Leu  
 1 5 10 15  
 Ile Asp Glu Cys Ile Glu Lys Phe Asn His Val Ser Gly Ser Arg Gly  
 20 25 30  
 Ser Glu Ser Pro Arg Pro Asn Pro Pro His Ala Ala Arg His Arg Glu  
 35 40 45  
 Pro Gly Pro Val Arg Arg Pro Met Arg Lys Ser Phe Ser Gln Pro Gly  
 50 55 60  
 Leu Arg Ser Leu Ala Phe Arg Lys Glu Leu Gln Asp Gly Gly Leu Arg  
 65 70 75 80  
 Ser Ser Gly Phe Phe Ser Ser Phe Glu Glu Ser Asp Ile Glu Asn His  
 85 90 95  
 Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn  
 100 105 110  
 Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser  
 115 120 125  
 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser  
 130 135 140  
 Phe Cys Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys  
 145 150 155 160  
 Arg Glu Ser Ser Gly Gly Gly Gly Phe His Phe Val Cys Tyr Val Phe  
 165 170 175  
 Gln Cys Thr Asn Glu Ala Leu Val Asp Glu Ile Met Met Thr Leu Lys  
 180 185 190  
 Gln Ala Phe Thr Val Ala Ala Val Gln Gln Thr Ala Lys Ala Pro Ala  
 195 200 205  
 Gln Leu Cys Glu Gly Cys Pro Leu Gln Ser Leu His Lys Leu Cys Glu  
 210 215 220  
 Arg Ile Glu Gly Met Asn Ser Ser Lys Thr Lys Leu Glu Leu Gln Lys  
 225 230 235 240  
 His Leu Thr Thr Leu Thr Asn Gln Glu Gln Ala Thr Ile Phe Glu Glu  
 245 250 255  
 Val Gln Lys Leu Arg Pro Arg Asn Glu Gln Arg Glu Asn Glu Leu Ile  
 260 265 270  
 Ile Ser Phe Leu Arg Cys Leu Tyr Glu Glu Lys Gln Lys Glu His Ile  
 275 280 285  
 His Ile Gly Glu Met Lys Gln Thr Ser Gln Met Ala Ala Glu Asn Ile  
 290 295 300  
 Gly Ser Glu Leu Pro Pro Ser Ala Thr Arg Phe Arg Leu Asp Met Leu  
 305 310 315 320  
 Lys Asn Lys Ala Lys Arg Ser Leu Thr Glu Ser Leu Glu Ser Ile Leu  
 325 330 335  
 Ser Arg Gly Asn Lys Ala Arg Gly Leu Gln Glu His Ser Ile Ser Val  
 340 345 350  
 Asp Leu Asp Ser Ser Leu Ser Ser Thr Leu Ser Asn Thr Ser Lys Glu  
 355 360 365  
 Pro Ser Val Cys Glu Lys Glu Ala Leu Pro Ile Ser Glu Ser Ser Phe  
 370 375 380  
 Lys Leu Leu Gly Ser Ser Glu Asp Leu Ser Ser Asp Ser Glu Ser His



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385          390          395          400
Leu Pro Glu Glu Pro Ala Pro Leu Ser Pro Gln Gln Ala Phe Arg Arg
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Arg Ala Asn Thr Leu Ser His Phe Pro Ile Glu Cys Gln Glu Pro Pro
          420          425          430
Gln Pro Ala Arg Gly Ser Pro Gly Val Ser Gln Arg Lys Leu Met Arg
          435          440          445
Tyr His Ser Val Ser Thr Glu Thr Pro His Glu Arg Lys Asp Phe Glu
          450          455          460
Ser Lys Ala Asn His Leu Gly Asp Ser Gly Gly Thr Pro Val Lys Thr
          465          470          475          480
Arg Arg His Ser Trp Arg Gln Gln Ile Phe Leu Arg Val Ala Thr Pro
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Gln Lys Ala Cys Asp Ser Ser Ser Arg Tyr Glu Asp Tyr Ser Glu Leu
          500          505          510
Gly Glu Leu Pro Pro Arg Ser Pro Leu Glu Pro Val Cys Glu Asp Gly
          515          520          525
Pro Phe Gly Pro His Gln Arg Lys Arg Lys Gly His Leu Val Ser Ser
          530          535          540
Glu Ser Cys Gly Lys Gly Leu Phe Phe Asn Arg Tyr Cys Xaa Leu Arg
          545          550          555          560
Met Glu Lys Glu Asn Gln Lys Leu Gln Ala Ser Glu Asn Asp Leu Leu
          565          570          575
Asn Lys Arg Leu Lys Leu Asp Tyr Glu Glu Ile Thr Pro Cys Leu Lys
          580          585          590
Glu Val Thr Thr Val Trp Glu Lys Met Leu Ser Thr Pro Gly Arg Ser
          595          600          605
Lys Ile Lys Phe Asp Met Glu Lys Met His Ser Ala Val Gly Gln Gly
          610          615          620
Val Pro Arg His His Arg Gly Glu Ile Trp Lys Phe Leu Ala Glu Gln
          625          630          635          640
Phe His Leu Lys His Gln Phe Pro Ser Lys Gln Gln Pro Lys Asp Val
          645          650          655
Pro Tyr Lys Glu Leu Leu Lys Gln Leu Thr Ser Gln Gln His Ala Ile
          660          665          670
Leu Ile Asp Leu Gly Arg Thr Phe Pro Thr His Pro Tyr Phe Ser Ala
          675          680          685
Gln Leu Gly Ala Gly Gln Leu Ser Leu Tyr Asn Ile Leu Lys Ala Tyr
          690          695          700
Ser Leu Leu Asp Gln Glu Val Gly Tyr Cys Gln Gly Leu Ser Phe Val
          705          710          715          720
Ala Gly Ile Leu Leu Leu His Met Ser Glu Glu Glu Ala Phe Lys Met
          725          730          735
Leu Lys Phe Leu Met Phe Asp Met Gly Leu Arg Lys Gln Tyr Arg Pro
          740          745          750
Asp Met Ile Leu Gln Ile Gln Met Tyr Gln Leu Ser Arg Leu Leu
          755          760          765
His Asp Tyr His Arg Asp Leu Tyr Asn His Leu Glu Glu His Glu Ile
          770          775          780
Gly Pro Ser Leu Tyr Ala Ala Pro Trp Phe Leu Thr Met Phe Ala Ser
          785          790          795          800
Gln Phe Pro Leu Gly Phe Val Ala Arg Val Phe Asp Met Ile Phe Leu
          805          810          815
Gln Gly Thr Glu Val Ile Phe Lys Val Ala Leu Ser Leu Leu Gly Ser

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His	Lys	Pro	Leu	Ile	Leu	Gln	His	Glu	Asn	Leu	Glu	Thr	Ile	Val	Asp	
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Phe	Ile	Lys	Ser	Thr	Leu	Pro	Asn	Leu	Gly	Leu	Val	Gln	Met	Glu	Lys	
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Thr	Ile	Asn	Gln	Val	Phe	Glu	Met	Asp	Ile	Ala	Lys	Gln	Leu	Gln	Ala	
865							870					875				
Tyr	Glu	Val	Glu	Tyr	His	Val	Leu	Gln	Glu	Glu	Leu	Ile	Asp	Ser	Ser	
885							890					895				
Pro	Leu	Ser	Asp	Asn	Gln	Arg	Met	Asp	Lys	Leu	Glu	Lys	Thr	Asn	Ser	
900							905					910				
Ser	Leu	Arg	Lys	Gln	Asn	Leu	Asp	Leu	Leu	Glu	Gln	Leu	Gln	Val	Ala	
915							920					925				
Asn	Gly	Arg	Ile	Gln	Ser	Leu	Glu	Ala	Thr	Ile	Glu	Lys	Leu	Leu	Ser	
930							935					940				
Ser	Glu	Ser	Lys	Leu	Lys	Gln	Ala	Met	Leu	Thr	Leu	Glu	Leu	Glu	Arg	
945							950					955				
Ser	Pro	Ala	Ala	Asp	Gly	Gly	Gly	Ala	Ala	Ala	Ala	Glu	Arg	Arg	Ala	
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<212> DNA
<213> Homo sapiens
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300
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780

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<211> 93

<212> PRT

<213> Homo sapiens

<400> 5920

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Cys	Gly	Gln	Glu	Thr	Pro	Arg	Ser	Ala	Ala	Val	Gly	Gly	Arg	Gly	Arg
			20					25					30		
Gly	Val	Gly	Pro	Trp	Arg	Gly	Trp	Lys	Thr	Thr	Trp	His	Leu	Gly	Gly
		35					40					45			
Gly	Ala	Thr	Gly	Ser	Gly	Arg	Ala	Trp	Ala	Ala	Glu	Lys	Phe	Arg	Gly
	50					55					60				
Leu	Gln	Glu	Arg	Ala	Glu	Arg	Val	Pro	Pro	Arg	Ser	Cys	Glu	Arg	His
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Ser	Val	Gly	Thr	Lys	Ser	Gly	Ala	Gly	Ala	Leu	Ile	Ala			
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<210> 5921

<211> 4130

<212> DNA

<213> Homo sapiens

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 cctattactc atcaactggc atcttgttcc tccagtgact ttgggttgtg gtctcctgaa  
 240  
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<211> 1252

<212> PRT

<213> Homo sapiens

<400> 5922

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		20						25					30		
Lys	Ser	Val	Ile	Ile	Trp	Thr	Ser	Lys	Leu	Glu	Gly	Ile	Leu	Lys	Tyr
	35						40					45			
Thr	His	Asn	Asp	Ala	Ile	Gln	Cys	Val	Ser	Tyr	Asn	Pro	Ile	Thr	His
	50					55					60				
Gln	Leu	Ala	Ser	Cys	Ser	Ser	Ser	Asp	Phe	Gly	Leu	Trp	Ser	Pro	Glu
65				70					75					80	
Gln	Lys	Ser	Val	Ser	Lys	His	Lys	Ser	Ser	Ser	Lys	Ile	Ile	Cys	Cys
			85						90					95	
Ser	Trp	Thr	Asn	Asp	Gly	Gln	Tyr	Leu	Ala	Leu	Gly	Met	Phe	Asn	Gly
			100					105					110		
Ile	Ile	Ser	Ile	Arg	Asn	Lys	Asn	Gly	Glu	Glu	Lys	Val	Lys	Ile	Glu
	115					120						125			
Arg	Pro	Gly	Gly	Ser	Leu	Ser	Pro	Ile	Trp	Ser	Ile	Cys	Trp	Asn	Pro
	130					135					140				
Ser	Ser	Arg	Trp	Glu	Ser	Phe	Trp	Met	Asn	Arg	Glu	Asn	Glu	Asp	Ala
145				150					155					160	
Glu	Asp	Val	Ile	Val	Asn	Arg	Tyr	Ile	Gln	Glu	Ile	Pro	Ser	Thr	Leu
			165						170					175	
Lys	Ser	Ala	Val	Tyr	Ser	Ser	Gln	Gly	Ser	Glu	Ala	Glu	Glu	Glu	Glu
			180					185					190		
Pro	Glu	Glu	Glu	Asp	Asp	Ser	Pro	Arg	Asp	Asp	Asn	Leu	Glu	Glu	Arg
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Asn	Asp	Ile	Leu	Ala	Val	Ala	Asp	Trp	Gly	Gln	Lys	Val	Ser	Phe	Tyr



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      245                250                255
Gly Ser Asp Lys Gln Val Ser Leu Phe Thr Lys Asp Gly Val Arg Leu
      260                265                270
Gly Thr Val Gly Glu Gln Asn Ser Trp Val Trp Thr Cys Gln Ala Lys
      275                280                285
Pro Asp Ser Asn Tyr Val Val Val Gly Cys Gln Asp Gly Thr Ile Ser
      290                295                300
Phe Tyr Gln Leu Ile Phe Ser Thr Val His Gly Leu Tyr Lys Asp Arg
305                310                315                320
Tyr Ala Tyr Arg Asp Ser Met Thr Asp Val Ile Val Gln His Leu Ile
      325                330                335
Thr Glu Gln Lys Val Arg Ile Lys Cys Lys Glu Leu Val Lys Lys Ile
      340                345                350
Ala Ile Tyr Arg Asn Arg Leu Ala Ile Gln Leu Pro Glu Lys Ile Leu
      355                360                365
Ile Tyr Glu Leu Tyr Ser Glu Asp Leu Ser Asp Met His Tyr Arg Val
      370                375                380
Lys Glu Lys Ile Ile Lys Lys Phe Glu Cys Asn Leu Leu Val Val Cys
385                390                395                400
Ala Asn His Ile Ile Leu Cys Gln Glu Lys Arg Leu Gln Cys Leu Ser
      405                410                415
Phe Ser Gly Val Lys Glu Arg Glu Trp Gln Met Glu Ser Leu Ile Arg
      420                425                430
Tyr Ile Lys Val Ile Gly Gly Pro Pro Gly Arg Glu Gly Leu Leu Val
      435                440                445
Gly Leu Lys Asn Gly Gln Ile Leu Lys Ile Phe Val Asp Asn Leu Phe
      450                455                460
Ala Ile Val Leu Leu Lys Gln Ala Thr Ala Val Arg Cys Leu Asp Met
465                470                475                480
Ser Ala Ser Arg Lys Lys Leu Ala Val Val Asp Glu Asn Asp Thr Cys
      485                490                495
Leu Val Tyr Asp Ile Asp Thr Lys Glu Leu Leu Phe Gln Glu Pro Asn
      500                505                510
Ala Asn Ser Val Ala Trp Asn Thr Gln Cys Glu Asp Met Leu Cys Phe
      515                520                525
Ser Gly Gly Gly Tyr Leu Asn Ile Lys Ala Ser Thr Phe Pro Val His
      530                535                540
Arg Gln Lys Leu Gln Gly Phe Val Val Gly Tyr Asn Gly Ser Lys Ile
545                550                555                560
Phe Cys Leu His Val Phe Ser Ile Ser Ala Val Glu Val Pro Gln Ser
      565                570                575
Ala Pro Met Tyr Gln Tyr Leu Asp Arg Lys Leu Phe Lys Glu Ala Tyr
      580                585                590
Gln Ile Ala Cys Leu Gly Val Thr Asp Thr Asp Trp Arg Glu Leu Ala
      595                600                605
Met Glu Ala Leu Glu Gly Leu Asp Phe Glu Thr Ala Lys Lys Ala Phe
      610                615                620
Ile Arg Val Gln Asp Leu Arg Tyr Leu Glu Leu Ile Ser Ser Ile Glu
625                630                635                640
Glu Arg Lys Lys Arg Gly Glu Thr Asn Asn Asp Leu Phe Leu Ala Asp

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Val	Phe	Ser	Tyr	Gln	Gly	Lys	Phe	His	Glu	Ala	Ala	Lys	Leu	Tyr	Lys	
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Arg	Ser	Gly	His	Glu	Asn	Leu	Ala	Leu	Glu	Met	Tyr	Thr	Asp	Leu	Cys	
		675					680					685				
Met	Phe	Glu	Tyr	Ala	Lys	Asp	Phe	Leu	Gly	Ser	Gly	Asp	Pro	Lys	Glu	
		690				695					700					
Thr	Lys	Met	Leu	Ile	Thr	Lys	Gln	Ala	Asp	Trp	Ala	Arg	Asn	Ile	Lys	
705					710					715					720	
Glu	Pro	Lys	Ala	Ala	Val	Glu	Met	Tyr	Ile	Ser	Ala	Gly	Glu	His	Val	
				725						730				735		
Lys	Ala	Ile	Glu	Ile	Cys	Gly	Asp	His	Gly	Trp	Val	Asp	Met	Leu	Ile	
			740					745					750			
Asp	Ile	Ala	Arg	Lys	Leu	Asp	Lys	Ala	Glu	Arg	Glu	Pro	Leu	Leu	Leu	
		755					760					765				
Cys	Ala	Thr	Tyr	Leu	Lys	Lys	Leu	Asp	Ser	Pro	Gly	Tyr	Ala	Ala	Glu	
		770				775					780					
Thr	Tyr	Leu	Lys	Met	Gly	Asp	Leu	Lys	Ser	Leu	Val	Gln	Leu	His	Val	
785					790					795					800	
Glu	Thr	Gln	Arg	Trp	Asp	Glu	Ala	Phe	Ala	Leu	Gly	Glu	Lys	His	Pro	
				805						810				815		
Glu	Phe	Lys	Asp	Asp	Ile	Tyr	Met	Pro	Tyr	Ala	Gln	Trp	Leu	Ala	Glu	
			820					825					830			
Asn	Asp	Arg	Phe	Glu	Glu	Ala	Gln	Lys	Ala	Phe	His	Lys	Ala	Gly	Arg	
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Gln	Arg	Glu	Ala	Val	Gln	Val	Leu	Glu	Gln	Leu	Thr	Asn	Asn	Ala	Val	
		850				855					860					
Ala	Glu	Ser	Arg	Phe	Asn	Asp	Ala	Ala	Tyr	Tyr	Tyr	Trp	Met	Leu	Ser	
865					870					875					880	
Met	Gln	Cys	Leu	Asp	Ile	Ala	Gln	Ala	Asp	Pro	Ala	Gln	Lys	Asp	Thr	
				885						890				895		
Met	Leu	Gly	Lys	Phe	Tyr	His	Phe	Gln	Arg	Leu	Ala	Glu	Leu	Tyr	His	
			900					905					910			
Gly	Tyr	His	Ala	Ile	His	Arg	His	Thr	Glu	Asp	Pro	Phe	Ser	Val	His	
		915					920					925				
Arg	Pro	Glu	Thr	Leu	Phe	Asn	Ile	Ser	Arg	Phe	Leu	Leu	His	Ser	Leu	
		930				935					940					
Pro	Lys	Asp	Thr	Pro	Ser	Gly	Ile	Ser	Lys	Val	Lys	Ile	Leu	Phe	Thr	
945					950					955					960	
Leu	Ala	Lys	Gln	Ser	Lys	Ala	Leu	Gly	Ala	Tyr	Arg	Leu	Ala	Arg	His	
				965						970				975		
Ala	Tyr	Asp	Lys	Leu	Arg	Gly	Leu									



1075                      1080                      1085  
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 1090                      1095                      1100  
 Asp Glu Asp Pro Phe Thr Ala Lys Leu Ser Phe Glu Gln Gly Gly Ser  
 1105                      1110                      1115                      1120  
 Glu Phe Val Pro Val Val Val Ser Arg Leu Val Leu Arg Ser Met Ser  
 1125                      1130                      1135  
 Arg Arg Asp Val Leu Ile Lys Arg Trp Pro Pro Pro Leu Arg Trp Gln  
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 Tyr Phe Arg Ser Leu Leu Pro Asp Ala Ser Ile Thr Met Cys Pro Ser  
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 Cys Phe Gln Val Gly Gly His Pro Gly Ser Ser His Val Leu Leu Leu  
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 Ala Thr Phe Pro Leu Pro Lys Cys Pro Ser Gly Arg Arg Gly Pro Trp  
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 Glu Gly Gly Ala His Pro Trp Leu Gln Val Gly Thr Glu Ala Cys Leu  
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 Ser Ser Pro Leu Leu Ala Phe His Val His Leu Lys Trp Thr Ser Leu  
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<210> 5923

<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5923

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 240  
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 720



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&lt;210&gt; 5924

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5924

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Asn	Ser	Lys	Ser	Pro	Leu	Gln	Arg	Ser	Leu	Ser	Ala	Lys	Cys	Val	Ser
			100		105					110					
Gly	Thr	Gly	Gln	Val	Ser	Thr	Cys	Arg	Leu	Arg	Lys	Asp	Gln	Gln	Ala
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Glu	Asp	Asp	Glu	Asp	Asp	Glu	Leu	Asp	Val	Thr	Glu	Glu	Glu	Asn	Phe
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145															

&lt;210&gt; 5925

&lt;211&gt; 4538

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5925

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<210> 5926

<211> 526

<212> PRT

<213> Homo sapiens

<400> 5926

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Gln	Pro	Phe	Leu	Pro	Val	Phe	Thr	Met	Pro	Leu	Leu	Ser	Pro	Ser	Pro
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Ala	Pro	Pro	Pro	Ile	Ser	Pro	Val	Leu	Pro	Leu	Val	Pro	Pro	Pro	Ala
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Thr	Ala	Leu	Asn	Pro	Pro	Ala	Pro	Pro	Thr	Phe	His	Gln	Pro	Gln	Lys
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Phe	Ala	Gly	Val	Asn	Lys	Ala	Pro	Ser	Val	Ile	Thr	His	Thr	Ala	Ser
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Ala	Thr	Leu	Thr	His	Asp	Ala	Pro	Ala	Thr	Thr	Phe	Ser	Gln	Ser	Gln
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Gly	Leu	Val	Ile	Thr	Thr	His	His	Pro	Ala	Pro	Ser	Ala	Ala	Pro	Cys
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Gly	Leu	Ala	Leu	Ser	Pro	Val	Thr	Arg	Pro	Pro	Gln	Pro	Arg	Leu	Thr
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Phe	Val	His	Pro	Lys	Pro	Val	Ser	Leu	Thr	Gly	Gly	Arg	Pro	Lys	Gln
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Leu	Lys	Asn	Ala	Arg	Ile	Ala	Pro	Ala	Ala	Phe	Ser	Gly	Gln	Pro	Gln
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Ala	Val	Ile	Met	Thr	Ser	Gly	Pro	Leu	Lys	Arg	Glu	Gly	Met	Leu	Ala
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                290                295                300
Pro Gln Ser Pro Gln Asn Asn Cys Ser Gly Lys Ser Asp Pro Lys Asn
305                310                315                320
Val Ala Ala Leu Lys Asn Arg Gln Met Lys His Ile Ser Ala Glu Gln
                325                330                335
Lys Arg Arg Phe Asn Ile Lys Met Cys Phe Asp Met Leu Asn Ser Leu
                340                345                350
Ile Ser Asn Asn Ser Lys Leu Thr Ser His Ala Ile Thr Leu Gln Lys
                355                360                365
Thr Val Glu Tyr Ile Thr Lys Leu Gln Gln Glu Arg Gly Gln Met Gln
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Glu Glu Ala Arg Arg Leu Arg Glu Glu Ile Glu Glu Leu Asn Ala Thr
385                390                395                400
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Arg Arg Gln Phe Asp His Met Lys Asp Met Phe Asp Glu Tyr Val Lys
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Lys Pro Leu Phe Glu Ser Phe Lys Gly Met Val Ser Thr Ser Ser Leu
                450                455                460
Glu Glu Leu His Arg Thr Ala Leu Ser Trp Leu Asp Gln His Cys Ser
465                470                475                480
Leu Pro Ile Leu Arg Pro Met Val Leu Ser Thr Leu Arg Gln Leu Ser
                485                490                495
Thr Ser Thr Ser Ile Leu Thr Asp Pro Ala Gln Leu Pro Glu Gln Ala
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Ser Lys Ala Val Thr Arg Ile Gly Lys Arg Leu Gly Glu Ser
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&lt;210&gt; 5927

&lt;211&gt; 1786

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5927

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1786

&lt;210&gt; 5928

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5928

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Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly			
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Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr			
115	120	125	
Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln			
130	135	140	
Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His			
145	150	155	160
Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala			
165	170	175	
Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln Ser Asp Ile Val			
180	185	190	
Ser Thr Met Glu His Tyr Tyr Thr Ala Phe			
195	200		

&lt;210&gt; 5929

&lt;211&gt; 606

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5929

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606

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<210> 5930  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

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 Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg  
 35 40 45  
 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys  
 50 55 60  
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr  
 65 70 75 80  
 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn  
 85 90 95  
 Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile  
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<210> 5931  
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 <212> DNA  
 <213> Homo sapiens

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 240  
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 478

<210> 5932  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 5932

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 Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln  
 35 40 45  
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln  
 50 55 60  
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys  
 65 70 75 80  
 Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu  
 85 90 95  
 Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Gly Thr Thr  
 100 105

&lt;210&gt; 5933

&lt;211&gt; 1953

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5933

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 960



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 1920  
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 1953

&lt;210&gt; 5934

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5934

Met	Glu	Ile	Arg	Glu	Lys	Gly	Ser	Glu	Phe	Leu	Lys	Glu	Glu	Leu	His
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Arg	Ala	Gln	Lys	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Glu	Cys	Glu	Arg	Leu
		20					25					30			
Ser	Lys	Val	Arg	Glu	Gln	Leu	Glu	Gln	Glu	Leu	Glu	Glu	Leu	Thr	Ala
		35				40					45				
Ser	Leu	Phe	Glu	Glu	Ala	His	Lys	Met	Val	Arg	Glu	Ala	Asn	Met	Lys
		50				55					60				
Gln	Ala	Ala	Ser	Glu	Lys	Gln	Leu	Lys	Glu	Ala	Arg	Gly	Lys	Ile	Asp
65					70					75				80	
Met	Leu	Gln	Ala	Glu	Val	Thr	Ala	Leu	Lys	Thr	Leu	Val	Ile	Thr	Ser
					85				90					95	
Thr	Pro	Ala	Ser	Pro	Asn	Arg	Glu	Leu	His	Pro	Gln	Leu	Leu	Ser	Pro



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Thr Lys Ala Gly Pro Arg Lys Gly His Ser Arg His Lys Ser Thr Ser
      115      120      125
Ser Thr Leu Cys Pro Ala Val Cys Pro Ala Ala Gly His Thr Leu Thr
      130      135      140
Pro Asp Arg Glu Gly Lys Glu Val Asp Thr Ile Leu Phe Ala Glu Phe
145      150      155      160
Gln Ala Trp Arg Glu Ser Pro Thr Leu Asp Lys Thr Cys Pro Phe Leu
      165      170      175
Glu Arg Val Tyr Arg Glu Asp Val Gly Pro Cys Leu Asp Phe Thr Met
      180      185      190
Gln Glu Leu Ser Val Leu Val Arg Ala Ala Val Glu Asp Asn Thr Leu
      195      200      205
Thr Ile Glu Pro Val Ala Ser Gln Thr Leu Pro Thr Val Lys Val Ala
      210      215      220
Glu Val Asp Cys Ser Ser Thr Asn Thr Cys Ala Leu Ser Gly Leu Thr
225      230      235      240
Arg Thr Cys Arg His Arg Ile Arg Leu Gly Asp Ser Lys Ser His Tyr
      245      250      255
Tyr Ile Ser Pro Ser Ser Arg Ala Arg Ile Thr Ala Val Cys Asn Phe
      260      265      270
Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Arg Gln Asp Ala
      275      280      285
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Ala Lys Leu Gly Phe Phe Pro Gln Glu Ala
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&lt;210&gt; 5935

&lt;211&gt; 2727

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5935

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600

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<210> 5936

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5936

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		20						25					30		
Asp	Gln	Glu	Pro	Pro	Pro	Tyr	Gln	Glu	Gln	Val	Pro	Val	Pro	Val	
		35				40				45					
Tyr	His	Pro	Thr	Pro	Ser	Gln	Thr	Arg	Leu	Ala	Thr	Gln	Leu	Thr	Glu
	50				55			60							
Glu	Glu	Gln	Ile	Arg	Ile	Ala	Gln	Arg	Ile	Gly	Leu	Ile	Gln	His	Leu
65				70				75					80		
Pro	Lys	Gly	Val	Tyr	Asp	Pro	Gly	Arg	Asp	Gly	Ser	Glu	Lys	Lys	Ile
			85					90					95		
Arg	Glu	Cys	Val	Ile	Cys	Met	Met	Asp	Phe	Val	Tyr	Gly	Asp	Pro	Ile
		100						105					110		
Arg	Phe	Leu	Pro	Cys	Met	His	Ile	Tyr	His	Leu	Asp	Cys	Ile	Asp	Asp
		115					120					125			
Trp	Leu	Met	Arg	Ser	Phe	Thr	Cys	Pro	Ser	Cys	Met	Glu	Pro	Val	Asp
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Ala	Ala	Leu	Leu	Ser	Ser	Tyr	Glu	Thr	Asn						
145						150									

<210> 5937

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 5937

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1536

&lt;210&gt; 5938

&lt;211&gt; 406

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5938

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Ala Phe Leu Leu Thr Ile Pro Glu Asn Ala Glu Gly His Ile Ile Leu
      20           25           30
Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
      35           40           45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
      50           55           60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
65           70           75           80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
      85           90           95
Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
      100          105          110
Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
      115          120          125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
      130          135          140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
145          150          155          160
Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
      165          170          175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
      180          185          190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
      195          200          205
Leu Leu Leu Cys Asn Arg Asn Asp Thr Ala Trp Asp Glu Leu Lys Leu
      210          215          220
Thr Cys Gln Thr Ala Leu His Val Leu Gln Leu Thr Leu Lys Glu Pro
225          230          235          240
Trp Ala Leu Leu Gly Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
      245          250          255
Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
      260          265          270
Glu Cys Thr Gln Thr Glu Leu Gln Leu Ile Ala Glu Ala Phe Cys Ser
      275          280          285
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
      290          295          300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
305          310          315          320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
      325          330          335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
      340          345          350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
      355          360          365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
      370          375          380
Leu Gln Val Ala Val Glu Thr Ala Asn Leu Ile Leu Asp Leu Ser Tyr
385          390          395          400
Val Ile Glu Asp Lys Asn

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405

&lt;210&gt; 5939

&lt;211&gt; 795

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5939

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240
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300
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&lt;210&gt; 5940

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5940

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Cys Lys Arg Lys Glu Gln Glu Gln Lys Glu Arg Ala Leu Gln Pro
1           5           10          15
Lys Lys Gln Arg Leu Val Phe Thr Asp Leu Gln Arg Arg Thr Leu Ile
20          25          30
Ala Ile Phe Lys Glu Asn Lys Arg Pro Ser Lys Glu Met Gln Val Thr
35          40          45
Ile Ser Gln Gln Leu Gly Leu Glu Leu Asn Thr Val Ser Asn Phe Phe
50          55          60
Met Asn Ala Arg Arg Arg Cys Met Asn Arg Trp Ala Glu Glu Pro Ser
65          70          75          80
Thr Ala Pro Gly Gly Pro Ala Gly Ala Thr Ala Thr Phe Ser Lys Ala

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85

90

95

&lt;210&gt; 5941

&lt;211&gt; 2590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5941

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&lt;210&gt; 5942

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5942

Met	Ser	Ser	Leu	His	Gly	Ser	His	Gln	Gln	Phe	Phe	Phe	Pro	Leu	Leu
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Arg	Gln	Ser	Leu	Ala	Leu	Leu	Xaa	Gln	Val	Gly	Val	Gln	Trp	His	Asp
			20					25				30			
Pro	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys



```

          35          40          45
Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Leu Ser Ser Arg Leu
   50          55          60
Ala Thr Phe Cys Ile Phe Ser Arg Asp Arg Val Ser Pro Cys Trp Pro
  65          70          75          80
Gly Trp Ser Gln Thr Pro Asp Leu Lys
          85

```

&lt;210&gt; 5943

&lt;211&gt; 781

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5943

```

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&lt;210&gt; 5944

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5944

```

Ile Val Gly Asn Asp Leu Asp Ser Ala Gln Thr Lys Pro Thr Leu Asp
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Gly Gln Leu Val Val Ile Gly Lys Asp Glu Ser Tyr Ser Lys Thr Ser
          20          25          30
Gly Val Ser Ser Ile Thr Lys Leu Gln Arg Gln Pro Phe Gly Val Glu

```



35	40	45
Thr Lys Pro Gly Ile Leu Cys Cys Phe Gln Asn Glu Phe Glu Asn Pro		
50	55	60
Cys Phe Pro Lys Ser His Phe Ser Val Thr Gln Ala Gly Glu Gln Trp		
65	70	75
Arg Asp Leu Ser Ser Pro Gln Pro Pro Pro Arg Phe Lys Gln Phe		
85	90	95
Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp His Arg His Pro Pro Pro		
100	105	110
Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Glu Val Ser Pro Arg		
115	120	125
Ser Arg Ser Pro Asp Leu Met Xaa Ser Ala His Leu Gly Leu Pro Lys		
130	135	140
Cys Trp Asp Tyr Arg Arg Glu Pro Leu Arg Pro Ala Gln Ile Ser Leu		
145	150	155
Leu Phe Ser Lys Ser Pro Ser Gln Asp Ile Gln Ala Lys Ala		
165	170	

&lt;210&gt; 5945

&lt;211&gt; 869

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5945

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```



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 <211> 121  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln  
 50 55 60  
 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln  
 65 70 75 80  
 Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu  
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 Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys Leu Val  
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 <212> PRT  
 <213> Homo sapiens

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 <213> Homo sapiens

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<210> 5950

<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

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Glu	Glu	Ile	Ile	Lys	Arg	Val	Phe	Asp	Pro	Ala	Leu	Asn	Leu	Phe	Lys
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Thr	Thr	Ser	Gly	Asp	Glu	Arg	Leu	Tyr	Pro	Ser	Pro	Thr	Ser	Tyr	Ile
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His	Glu	Asn	Tyr	Leu	Gln	Leu	Phe	Glu	Phe	Val	Gly	Lys	Met	Leu	Gly
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Lys	Ala	Val	Tyr	Glu	Gly	Ile	Val	Val	Asp	Val	Pro	Phe	Ala	Ser	Phe
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225              230              235              240
Ile Arg Met Phe Ser Thr Pro Glu Leu Gln Arg Leu Ile Ser Gly Asp
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Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr
      260              265              270
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile
      275              280              285
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe
      290              295              300
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys
305              310              315              320
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr
      325              330              335
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys
      340              345              350
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu
      355              360              365
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu
      370              375              380
Arg Tyr Ala Ile Ser Met Asn Thr Gly Phe Glu Leu Ser
385              390              395

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&lt;210&gt; 5951

&lt;211&gt; 1724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5951

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720

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&lt;210&gt; 5952

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5952

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		20					25					30			
Ala	Pro	Arg	Phe	Pro	Pro	Gly	Gly	Phe	Ala	Ala	Gly	Arg	Thr	Met	Leu
	35					40					45				
Leu	Lys	Glu	Tyr	Arg	Ile	Cys	Met	Pro	Leu	Thr	Val	Asp	Glu	Tyr	Lys
	50				55					60					
Ile	Gly	Gln	Leu	Tyr	Met	Ile	Ser	Lys	His	Ser	His	Glu	Gln	Ser	Asp
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Lys	Leu	Pro	Ser	Trp	Ala	Arg	Ala	Val	Val	Pro	Lys	Ile	Phe	Tyr	Val
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Thr	Glu	Lys	Ala	Trp	Asn	Tyr	Tyr	Pro	Tyr	Thr	Ile	Thr	Glu	Tyr	Thr
	130		135		140										
Cys	Ser	Phe	Leu	Pro	Lys	Phe	Ser	Ile	His	Ile	Glu	Thr	Lys	Tyr	Glu
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Asp	Asn	Lys	Gly	Ser	Asn	Asp	Thr	Ile	Phe	Asp	Asn	Glu	Ala	Lys	Asp
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Val	Glu	Arg	Glu	Val	Cys	Phe	Ile	Asp	Ile	Ala	Cys	Asp	Glu	Ile	Pro
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	260		265		270										
Tyr	Asp	Met	Thr	Met	Asp	Glu	Val	Arg	Glu	Phe	Glu	Arg	Ala	Thr	Gln
	275		280		285										
Glu	Ala	Thr	Asn	Lys	Lys	Ile	Gly	Ile	Phe	Pro	Pro	Ala	Ile	Ser	Ile
	290		295		300										
Ser	Ser	Ile	Pro	Leu	Leu	Pro	Ser	Ser	Val	Arg	Ser	Ala	Pro	Ser	Ser
305			310		315										320
Ala	Pro	Ser	Thr	Pro	Leu	Ser	Thr	Asp	Ala	Pro	Glu	Phe	Leu	Ser	Val
			325		330										335
Pro	Lys	Asp	Arg	Pro	Arg	Lys	Lys	Ser	Ala	Pro	Glu	Thr	Leu	Thr	Leu
	340		345		350										
Pro	Asp	Pro	Glu	Lys	Lys	Ala	Thr	Leu	Asn	Leu	Pro	Gly	Met	His	Ser
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	370		375												

&lt;210&gt; 5953

&lt;211&gt; 777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5953

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180

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300

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&lt;210&gt; 5954

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5954

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 35 40 45  
 Arg Gln Leu Xaa Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu  
 50 55 60  
 Val Gln Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu  
 65 70 75 80  
 Asn Cys Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala  
 85 90 95  
 Val Leu Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile  
 100 105 110  
 Ile Ser Glu Tyr Glu Lys Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser  
 115 120 125  
 Ile Met Leu Ala Glu Trp Glu Ala Asn Pro Leu Ile Cys Pro Val Cys  
 130 135 140  
 Thr Lys Pro Val Ile Leu Gly Leu  
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&lt;210&gt; 5955

&lt;211&gt; 1459

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5955

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 1440  
 aaaaaaaaaa aagtcgacg  
 1459

&lt;210&gt; 5956

&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5956

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<210> 5957

<211> 855



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5957

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&lt;210&gt; 5958

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5958

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35 40 45  
Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val  
50 55 60  
Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys Pro Glu  
65 70 75 80  
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Ile Gln Gln Glu Leu Ile Asn Gln Gly Leu



100

105

<210> 5959  
 <211> 830  
 <212> DNA  
 <213> Homo sapiens

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<210> 5960  
 <211> 251  
 <212> PRT  
 <213> Homo sapiens

<400> 5960  
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 20 25 30  
 Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn  
 35 40 45  
 Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr  
 50 55 60  
 Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser  
 65 70 75 80  
 Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu



									85			90			95		
Met	Lys	Val	Pro	Asp	Cys	Ala	Glu	Thr	Phe	Met	Thr	Leu	Leu	Leu	Val		
									100			105			110		
Ile	Thr	Asp	Arg	Tyr	Lys	Asn	Leu	Pro	Thr	Ala	Ser	Arg	Lys	Leu	Gln		
									115			120			125		
Phe	Leu	Glu	Leu	Gln	Lys	Asp	Leu	Val	Asp	Asp	Phe	Arg	Ile	Arg	Leu		
									130			135			140		
Thr	Gln	Val	Met	Lys	Glu	Glu	Thr	Arg	Ala	Ser	Leu	Gly	Phe	Arg	Tyr		
									145			150			155		
Cys	Ala	Ile	Leu	Asn	Ala	Val	Asn	Tyr	Ile	Ser	Thr	Val	Leu	Ala	Asp		
									165			170			175		
Trp	Ala	Asp	Asn	Val	Phe	Phe	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Leu	Glu		
									180			185			190		
Val	Phe	Ala	Glu	Asn	Asn	Thr	Leu	Ser	Lys	Leu	Gln	Leu	Gly	Gln	Leu		
									195			200			205		
Ala	Ser	Met	Glu	Ser	Ser	Val	Phe	Asp	Asp	Met	Ile	Asn	Leu	Leu	Glu		
									210			215			220		
Arg	Leu	Lys	His	Asp	Met	Leu	Thr	Arg	Gln	Val	Asp	His	Val	Phe	Arg		
									225			230			235		
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<210> 5961

<211> 585

<212> DNA

<213> Homo sapiens

<400> 5961

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240
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300
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cacacctatg tgactcccgc atgttttgtt ccttatgtgt cccatgcatg ctccccatct
420
gaccttgctg gttctcgcgt gtctgtgtgc ggccagtcct gccttcactc tctcatgggt
480
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<210> 5962

<211> 114

<212> PRT

<213> Homo sapiens



&lt;400&gt; 5962

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          20           25           30
Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
          35           40           45
Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
          50           55           60
Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
65           70           75           80
Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
          85           90           95
Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
          100          105          110
Pro Ser

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&lt;210&gt; 5963

&lt;211&gt; 1288

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5963

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240
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420
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cccagtaaag tgactgatgc cctccagag ccagaacctc caggagcgat ggctgcctca
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gaggatgagg aggaggagga agaggctctg gaggccatgc agtcccggct ggccacactc
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720
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780
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840
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900

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ggaaagaaat ccattctgtc atgaagcact tctgaaaata taggtgattg cctgaatgtc  
 960  
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 1020  
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 1080  
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 1140  
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<210> 5964

<211> 222

<212> PRT

<213> Homo sapiens

<400> 5964

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			20					25					30		
Gln	Ile	Arg	Asp	Ile	Gln	Arg	Glu	Glu	Glu	Lys	Val	Lys	Arg	Ser	Val
			35				40					45			
Lys	Asp	Ala	Ala	Lys	Lys	Gly	Gln	Lys	Asp	Val	Cys	Ile	Val	Leu	Ala
	50				55				60						
Lys	Glu	Met	Ile	Arg	Ser	Arg	Lys	Ala	Val	Ser	Lys	Leu	Tyr	Ala	Ser
65				70					75					80	
Lys	Ala	His	Met	Asn	Ser	Val	Leu	Met	Gly	Met	Lys	Asn	Gln	Leu	Ala
				85				90					95		
Val	Leu	Arg	Val	Ala	Gly	Ser	Leu	Gln	Lys	Ser	Thr	Glu	Val	Met	Lys
			100				105						110		
Ala	Met	Gln	Ser	Leu	Val	Lys	Ile	Pro	Glu	Ile	Gln	Ala	Thr	Met	Arg
			115				120					125			
Glu	Leu	Ser	Lys	Glu	Met	Met	Lys	Ala	Gly	Ile	Ile	Glu	Glu	Met	Leu
	130				135						140				
Glu	Asp	Thr	Phe	Glu	Ser	Met	Asp	Asp	Gln	Glu	Glu	Met	Glu	Glu	Glu
145				150					155					160	
Ala	Glu	Met	Glu	Ile	Asp	Arg	Ile	Leu	Phe	Glu	Ile	Thr	Ala	Gly	Ala
			165					170					175		
Leu	Gly	Lys	Ala	Pro	Ser	Lys	Val	Thr	Asp	Ala	Leu	Pro	Glu	Pro	Glu
			180				185						190		
Pro	Pro	Gly	Ala	Met	Ala	Ala	Ser	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu
		195				200						205			
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	210					215					220				

<210> 5965

<211> 1011

<212> DNA

<213> Homo sapiens



&lt;400&gt; 5965

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 180  
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 240  
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 360  
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 420  
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 480  
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 660  
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 720  
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 780  
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 840  
 ccgacatctg ttcttggctt tttgtgacgc aggttgaagg gggaggaata gaaaaagaca  
 900  
 aactgccttg gaggagataa accaatttta tgtctatcat gttatacaaa aatctagaaa  
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 1011

&lt;210&gt; 5966

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5966

Gly Asn Gly Ser Cys Gly Phe Val Ser Arg Glu Glu Glu Met Ala Glu  
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 Ser Leu Arg Ser Pro Arg Arg Ser Leu Tyr Lys Leu Val Gly Ser Pro  
 20 25 30  
 Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg Met Arg Asn  
 35 40 45  
 Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly Ser Ser Gly  
 50 55 60  
 Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val Met Glu Glu  
 65 70 75 80  
 Glu Trp Asn Ala Leu Gln Xaa Gln Trp Xaa Asn Cys Pro Glu Asp Leu



85										90				95			
Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala	Val	Leu	Glu	Glu	Ile	Gln		
100										105				110			
Gln	Glu	Leu	Ile	Asn	Gln	Glu	Gln	Ser	Ile	Ile	Ser	Glu	Tyr	Glu	Lys		
115										120				125			
Ser	Leu	Gln	Phe	Asp	Glu	Lys	Cys	Leu	Ser	Ile	Met	Leu	Ala	Glu	Trp		
130										135				140			
Glu	Ala	Asn	Pro	Leu	Ile	Cys	Pro	Val	Cys	Thr	Lys	Tyr	Asn	Leu	Arg		
145										150				155			
Ile	Thr	Ser	Gly	Val	Val	Val	Cys	Gln	Cys	Gly	Leu	Ser	Ile	Pro	Ser		
165										170				175			
His	Ser	Ser	Glu	Leu	Thr	Glu	Gln	Lys	Leu	Arg	Ala	Cys	Leu	Glu	Gly		
180										185				190			
Ser	Ile	Asn	Glu	His	Ser	Ala	His	Cys	Pro	His	Thr	Pro	Glu	Phe	Ser		
195										200				205			
Val	Thr	Gly	Gly	Thr	Glu	Glu	Lys	Ser	Ser	Leu	Leu	Met	Ser	Cys	Leu		
210										215				220			
Ala	Cys	Asp	Thr	Trp	Ala	Val	Ile	Leu									
225										230							

<210> 5967

<211> 1806

<212> DNA

<213> Homo sapiens

<400> 5967

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120	tgtgcttttg	ttgctaggca	gtcaacagca	gggctactaa	agcacttcta
180	atcttttcct	ctattttaga	aatggatttc	aatgggtgtc	agtttgtttg
240	ctgaaagtga	gcatgttttt	gaacacatta	acaccgaagt	tctacgtggc
300	acttcttcac	taatattcag	gcttattttg	atatttgaat	ggtgggtatt
360	ggaacttcat	tcattgaaca	agtctcagta	agccacttgc	gcccccttct
420	gacaacaact	cttccaacaa	ttctaattcc	agtaacgggg	actcagattc
480	agtgtctcag	aatgcaaagt	atggcgaaat	ccactaaatt	tatttagggg
540	aatcggtata	cttgggtgac	aggacgagag	cctcttactt	actatgacat
600	gccccagacc	accagacatt	ctttacttgt	gactcggacc	atctgcgtcc
660	ataatgcaga	aagcctggag	agagagaaac	ccccaagcta	ggattttctgc
720	gccttgagga	taaatgagac	gagacaccaa	tgtcttggtg	tacatcaaaa
780	aatgtgtgcc	agaagactcg	ggaggaccag	ggaagcaaag	cccttctgga
840					actacaagca



tatgctgatg ttcaggcagt cttagcaaag tatgatgata taagcttacc aaagtcagca  
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 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 1680  
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 1800  
 ctttcc  
 1806

&lt;210&gt; 5968

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5968

Met	Asp	Phe	Asn	Gly	Val	Gln	Phe	Val	Cys	Arg	Asn	Leu	Leu	Lys	Val
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Ser	Met	Phe	Leu	Asn	Thr	Leu	Thr	Pro	Lys	Phe	Tyr	Val	Ala	Leu	Thr
			20					25					30		
Gly	Thr	Ser	Ser	Leu	Ile	Ser	Gly	Leu	Ile	Leu	Ile	Phe	Glu	Trp	Trp
			35				40					45			
Tyr	Phe	Arg	Lys	Tyr	Gly	Thr	Ser	Phe	Ile	Glu	Gln	Val	Ser	Val	Ser
			50			55					60				
His	Leu	Arg	Pro	Leu	Leu	Gly	Gly	Val	Asp	Asn	Asn	Ser	Ser	Asn	Asn
65					70				75					80	
Ser	Asn	Ser	Ser	Asn	Gly	Asp	Ser	Asp	Ser	Asn	Arg	Gln	Ser	Val	Ser
				85				90					95		
Glu	Cys	Lys	Val	Trp	Arg	Asn	Pro	Leu	Asn	Leu	Phe	Arg	Gly	Ala	Glu



			100					105					110				
Tyr	Asn	Arg	Tyr	Thr	Trp	Val	Thr	Gly	Arg	Glu	Pro	Leu	Thr	Tyr	Tyr		
	115						120					125					
Asp	Met	Asn	Leu	Ser	Ala	Gln	Asp	His	Gln	Thr	Phe	Phe	Thr	Cys	Asp		
	130					135					140						
Ser	Asp	His	Leu	Arg	Pro	Ala	Asp	Ala	Ile	Met	Gln	Lys	Ala	Trp	Arg		
145					150					155					160		
Glu	Arg	Asn	Pro	Gln	Ala	Arg	Ile	Ser	Ala	Ala	His	Glu	Ala	Leu	Glu		
				165						170				175			
Ile	Asn	Glu	Thr	Arg	His	Gln	Cys	Leu	Gly	Val	His	Gln	Lys	Lys	Ala		
			180						185				190				
Ser	Asn	Val	Cys	Gln	Lys	Thr	Arg	Glu	Asp	Gln	Gly	Ser	Lys	Ala	Leu		
	195					200						205					
Leu	Glu	Leu	Gln	Ala	Tyr	Ala	Asp	Val	Gln	Ala	Val	Leu	Ala	Lys	Tyr		
	210					215					220						
Asp	Asp	Ile	Ser	Leu	Pro	Lys	Ser	Ala	Thr	Ile	Cys	Tyr	Thr	Ala	Ala		
225					230					235				240			
Leu	Leu	Lys	Ala	Arg	Ala	Val	Ser	Asp	Lys	Phe	Ser	Pro	Glu	Ala	Ala		
			245						250				255				
Ser	Arg	Arg	Gly	Leu	Ser	Thr	Ala	Glu	Met	Asn	Ala	Val	Glu	Ala	Ile		
			260					265					270				
His	Arg	Ala	Val	Glu	Phe	Asn	Pro	His	Val	Pro	Lys	Tyr	Leu	Leu	Glu		
	275						280					285					
Met	Lys	Ser	Leu	Ile	Leu	Pro	Pro	Glu	His	Ile	Leu	Lys	Arg	Gly	Asp		
	290					295					300						
Ser	Glu	Ala	Ile	Ala	Tyr	Ala	Phe	Phe	His	Leu	Ala	His	Trp	Lys	Arg		
305					310					315				320			
Val	Glu	Gly	Ala	Leu	Asn	Leu	Leu	His	Cys	Thr	Trp	Glu	Gly	Thr	Phe		
			325						330				335				
Arg	Met	Ile	Pro	Tyr	Pro	Leu	Glu	Lys	Gly	His	Leu	Phe	Tyr	Pro	Tyr		
			340					345					350				
Pro	Ile	Cys	Thr	Glu	Thr	Ala	Asp	Arg	Glu	Leu	Leu	Pro	Ser	Phe	His		
	355						360					365					
Glu	Val	Ser	Val	Tyr	Pro	Lys	Lys	Glu	Leu	Pro	Phe	Phe	Ile	Leu	Phe		
	370					375					380						
Thr	Ala	Gly	Leu	Cys	Ser	Phe	Thr	Ala	Met	Leu	Ala	Leu	Leu	Thr	His		
385					390					395				400			
Gln	Phe	Pro	Glu	Leu	Met	Gly	Val	Phe	Ala	Lys	Ala	Val	Ser	Val	Cys		
			405						410				415				
Leu	Glu	Gly	Gly	Leu	Gly	Glu	Trp	Met	Gly	Lys	Ala	Lys	Gly	Ile	Lys		
			420					425					430				
Ala	Ala																

&lt;210&gt; 5969

&lt;211&gt; 429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5969

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ctggcgccgc ggggaaggggt cccggatctg cagcctgggg tcttgccag ccaggccatg

120



attgagaaga tcctgagcga ggacccccgg tggcaagatg ccaacttcgt gctgggcagc  
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 240  
 cactaccaca atagccggga caggcggcgc aacccccggc ggttcagta cagggtccacg  
 300  
 ccctgccccg gcgtgaagca cggggatgag tggggggaac cctcacgctg cgatggcggc  
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 429

<210> 5970

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5970

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Gln	Asn	Gly	Gln	Leu	Gly	Gly	Gly	Glu	Gly	Val	Pro	Asp	Leu	Gln	Pro
			20					25				30			
Gly	Val	Leu	Ala	Ser	Gln	Ala	Met	Ile	Glu	Lys	Ile	Leu	Ser	Glu	Asp
		35					40					45			
Pro	Arg	Trp	Gln	Asp	Ala	Asn	Phe	Val	Leu	Gly	Ser	Tyr	Lys	Thr	Glu
	50					55					60				
Gln	Cys	Pro	Lys	Pro	Pro	Arg	Leu	Cys	Arg	Gln	Gly	Tyr	Ala	Cys	Pro
65					70					75				80	
His	Tyr	His	Asn	Ser	Arg	Asp	Arg	Arg	Arg	Asn	Pro	Arg	Arg	Phe	Gln
			85						90					95	
Tyr	Arg	Ser	Thr	Pro	Cys	Pro	Ser	Val	Lys	His	Gly	Asp	Glu	Trp	Gly
			100					105					110		
Glu	Pro	Ser	Arg	Cys	Asp	Gly	Gly	Asp	Gly	Cys	Gln	Tyr	Cys	His	Ser
		115					120					125			
Arg	Thr	Glu	Gln	Gln	Phe	His	Pro	Glu	Ile	Tyr	Lys	Ser	Thr	Lys	
	130					135						140			

<210> 5971

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5971

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 120  
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<210> 5972

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5972

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		20						25				30			
Arg	Asp	Ser	Ser	Leu	Leu	Tyr	Pro	His	Phe	Thr	Gly	Glu	Gly	Ile	Glu
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Ala	Gln	Lys	Val	Arg	Ser	Leu	Leu	Gln	Asp	Asp	Gln	Leu	Asn	Gln	Asn
	50					55					60				
Phe	Arg	Ala	Ser	Asn	Thr	Lys	Cys	Val	Pro	Leu	Ser	Ser	Val	Ser	His
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Leu	Leu	Pro	Arg	Gly	Ser	Ala	Ser	Ser	Leu	Trp	Pro	Leu	Ser	Ile	Leu
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<210> 5973

<211> 797

<212> DNA

<213> Homo sapiens

<400> 5973

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<210> 5974

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5974

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Ser	Leu	Arg	Ile	Met	Asp	Ala	Arg	Ala	Gln	Leu	Leu	Leu	Arg	Val	Pro
		20					25					30			
His	Pro	Gly	Pro	Ser	Leu	Thr	Ser	Gly	Ala	Leu	Thr	His	Ile	Arg	Asp
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Pro	His	Pro	Gly	Leu	Ser	Pro	Thr	Ser	Gly	Thr	Leu	Met	Pro	Gly	Arg
	50				55					60					
Arg	Arg	Gly	Gly	Pro	Ser	Phe	Gly	Thr	Pro	Ala	Leu	Arg	Arg	Arg	Lys
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Cys	His	Arg	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ser	Thr	Ala	Ala	Arg	Glu
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<211> 2175

<212> DNA

<213> Homo sapiens

<400> 5975

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<210> 5976

<211> 564

<212> PRT

<213> Homo sapiens

<400> 5976

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Tyr	Ala	Tyr	Pro	Ser	Asp	Tyr	Asp	Met	His	Thr	Gly	Asp	Pro	Lys	Gln
			20					25					30		
Asp	Leu	Ala	Tyr	Glu	Arg	Gln	Tyr	Glu	Gln	Gln	Thr	Tyr	Gln	Val	Ile
		35					40					45			
Pro	Glu	Val	Ile	Lys	Asn	Phe	Ile	Gln	Tyr	Phe	His	Lys	Thr	Val	Ser
	50					55					60				
Asp	Leu	Ile	Asp	Gln	Lys	Val	Tyr	Glu	Leu	Gln	Ala	Ser	Arg	Val	Ser
65				70					75					80	
Ser	Asp	Val	Ile	Asp	Gln	Lys	Val	Tyr	Glu	Ile	Gln	Asp	Ile	Tyr	Glu
			85						90					95	
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			100					105					110		
Pro	Glu	Ala	Glu	Ala	Ile	Ala	Pro	Gln	Val	Gly	Asn	Asp	Ala	Val	Phe
		115					120					125			
Leu	Ile	Leu	Tyr	Lys	Glu	Leu	Tyr	Tyr	Arg	His	Ile	Tyr	Ala	Lys	Val
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Cys	Asn	Leu	Phe	Asn	Tyr	Ile	Leu	Asn	Ala	Asp	Gly	Pro	Ala	Pro	Leu
			165						170					175	
Glu	Leu	Pro	Asn	Gln	Trp	Leu	Trp	Asp	Ile	Ile	Asp	Glu	Phe	Ile	Tyr
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Gln	Phe	Gln	Ser	Phe	Ser	Gln	Tyr	Arg	Cys	Lys	Thr	Ala	Lys	Lys	Ser
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His	Ser	Val	Leu	Asn	Val	Leu	His	Ser	Leu	Val	Asp	Lys	Ser	Asn	Ile
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Gln	Ala	Ile	Lys	Val	Leu	Glu	Asn	Ile	Glu	Leu	Asn	Lys	Lys	Ser	Met
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Tyr	Ser	Arg	Val	Pro	Glu	Cys	Gln	Val	Thr	Thr	Tyr	Tyr	Tyr	Val	Gly
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Phe	Ala	Tyr	Leu	Met	Met	Arg	Arg	Tyr	Gln	Asp	Ala	Ile	Arg	Val	Phe



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Thr Thr Tyr Lys Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His
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Ala Leu Leu Ala Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu
          370          375          380
Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg
385          390          395          400
Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser
          405          410          415
Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His
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          435          440          445
Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu
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Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp
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Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu
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Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile
          515          520          525
His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile
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&lt;210&gt; 5977

&lt;211&gt; 2320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5977

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2100



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<210> 5978

<211> 77

<212> PRT

<213> Homo sapiens

<400> 5978

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		20						25					30		
Gly	Arg	Gly	Gly	Gln	Ile	Ile	Xaa	Ala	Arg	Ser	Ser	Arg	Pro	Ala	Trp
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Thr	Thr	Trp	Arg	Xaa	Val	Phe	Thr	Lys	Asn	Thr	Lys	Ile	Ser	Trp	Ala
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<210> 5979

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 5979

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 <212> PRT  
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 65 70 75 80  
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 85 90 95  
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 100 105 110  
 Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr  
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 <211> 677  
 <212> DNA  
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<211> 98

<212> PRT

<213> Homo sapiens

<400> 5982

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			20					25					30		
Pro	Arg	Ala	Pro	Leu	Pro	Arg	Ser	Ser	Ala	Arg	Arg	Pro	Ser	Lys	Ala
		35					40					45			
Asn	Leu	His	Thr	Leu	Gly	Gln	Leu	Lys	Leu	Ser	Arg	Arg	Cys	Arg	Glu
	50				55					60					
Pro	Arg	Leu	Gly	Arg	Ala	Gly	Gln	Gln	Arg	Leu	His	Pro	Arg	Thr	Arg
65				70					75					80	
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Gly Lys

<210> 5983

<211> 790

<212> DNA

<213> Homo sapiens

<400> 5983

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 120



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&lt;210&gt; 5984

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5984

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			20					25					30		
Glu	Val	Asn	Arg	Gln	Cys	Pro	Gly	Glu	Lys	Glu	Pro	Val	Ser	Asp	Leu
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Gln	Leu	Gly	Leu	Asp	Ala	Val	Glu	Pro	Thr	Ala	Leu	His	Lys	Thr	Leu
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Glu	Thr	Pro	Ala	His	Asp	Arg	Ala	Glu	Pro	Asn	Ser	Gln	Leu	Asp	Ser
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Thr	His	Ser	Gly	Arg	Gly	Thr	Met	Tyr	Ser	Ser	Trp	Val	Lys	Ser	Pro
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Asp	Arg	Thr	Gly	Val	Asn	Phe	Ser	Val	Asn	Ser	Asn	Leu	Arg	Asp	Leu
			100					105					110		
Thr	Pro	Ser	His	Gln	Leu	Glu	Val	Gly	Gly	Gly	Phe	Arg	Ile	Ser	Glu
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Ser	Lys	Cys	Leu	Met	Gln	Asp	Asp	Thr	Arg	Gly	Met	Phe	Met	Glu	Thr
		130				135					140				
Thr	Val	Phe	Cys	Thr	Ser	Glu	Asp	Gly	Leu	Val	Ser	Gly	Phe	Gly	Arg
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Thr	Val	Asn	Asp	Asn	Leu	Ile	Asp	Gly	Asn	Cys	Thr	Pro	Gln	Asn	Pro
				165					170					175	
Pro	Gln	Lys	Lys	Lys	Val	Ser	Leu	Leu	Glu						



180

185

&lt;210&gt; 5985

&lt;211&gt; 737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5985

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 420  
 caacatggtt gaggtctgag attttacaca gattcattca agagttgctt gtggactact  
 480  
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 aaaaaaaaaa aaaaaaa  
 737

&lt;210&gt; 5986

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5986

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 20 25 30  
 Asp Leu Leu Gln Asn Pro Tyr Phe Ser Lys Leu Leu Leu Asn Leu Ser  
 35 40 45  
 Gln His Val Asp Glu Ser Gly Leu Ser Leu Thr Leu Ala Lys Glu Gln  
 50 55 60  
 Ala Gln Ala Trp Lys Glu Val Arg Leu His Lys Thr Thr Trp Leu Arg  
 65 70 75 80  
 Ser Glu Ile Leu His Arg Val Ile Gln Glu Leu Leu Val Asp Tyr Tyr  
 85 90 95  
 Val Lys Ile Gln Asp Thr Asn Val Thr Ser Glu Asp Lys Lys Phe His



	100		105		110
Glu Thr Leu Glu Gln Arg Leu Leu Val Thr Glu Leu Met Arg Leu Leu					
	115		120		125
Gly Pro Ser Gln Glu Arg Glu Ile Pro Pro Leu Leu Gly Leu Glu Lys					
	130		135		140
Ala Asp Leu Leu Glu Leu Met Pro Leu Ser Glu Val Gly Gly Glu Ile					
145		150		155	160
Leu Glu Pro Asn Lys					
	165				

&lt;210&gt; 5987

&lt;211&gt; 1444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5987

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1140

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<210> 5988  
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 <212> PRT  
 <213> Homo sapiens

<400> 5988  
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 35 40 45  
 Trp Ile Lys Ala Arg Ser Gly Asp Asn Pro Val Tyr Ile Trp Gly His  
 50 55 60  
 Ser Leu Gly Thr Gly Val Ala Thr Ile Trp Cys Gly Ala Ser Val Ser  
 65 70 75 80  
 Glu Thr Pro Pro Asp Ala Leu Ile Leu Glu Ser Pro Phe Thr Asn Ile  
 85 90 95  
 Arg Glu Glu Ala Lys Ser His Pro Phe Ser Val Ile Tyr Arg Tyr Phe  
 100 105 110  
 Pro Gly Phe Asp Trp Phe Phe Leu Asp Pro Ile Thr Ser Ser Gly Ile  
 115 120 125  
 Lys Phe Ala Asn Asp Glu Asn Val Lys His Ile Ser Cys Pro Leu Leu  
 130 135 140  
 Ile Leu His Ala Glu Asp Asp Pro Val Val Pro Phe Gln Leu Gly Arg  
 145 150 155 160  
 Lys Leu Tyr Ser Ile Ala Ala Pro Ala Arg Ser Phe Arg Asp Phe Lys  
 165 170 175  
 Val Gln Phe Val Pro Phe His Ser Asp Leu Gly Tyr Arg His Lys Tyr  
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<210> 5989  
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 <212> DNA  
 <213> Homo sapiens

<400> 5989



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<210> 5990  
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 <212> PRT  
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<400> 5990  
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 Pro Pro Ile Ser Cys Phe Tyr Cys Glu Cys Glu Glu Lys Arg Leu Cys  
 35 40 45  
 Val Asn Thr His Val Trp Thr Lys Ser Lys Phe Met Gly Met Ser Val  
 50 55 60  
 Gly Val Ser Met Ile Gly Glu Gly Val Leu Arg Leu Leu Glu His Gly  
 65 70 75 80  
 Glu Glu Tyr Val Phe Thr Leu Pro Ser Ala Tyr Ala Arg Ser Ile Leu  
 85 90 95  
 Thr Ile Pro Trp Val Glu Leu Gly Gly Lys Val Ser Ile Asn Cys Ala  
 100 105 110  
 Lys Thr Gly Tyr Ser Ala Thr Val Ile Phe His Thr Lys Pro Phe Tyr  
 115 120 125  
 Gly Gly Lys Val His Arg Val Thr Ala Glu Val Lys His Asn Pro Thr  
 130 135 140  
 Asn Thr Ile Val Cys Lys Ala His Gly Glu Trp Asn Gly Thr Leu Glu  
 145 150 155 160  
 Phe Thr Tyr Asn Asn Gly Glu Thr Lys Val Ile Asp Thr Thr Thr Leu  
 165 170 175  
 Pro Val Tyr Pro Lys Lys Ile Arg Pro Leu Glu Lys Gln Gly Pro Met  
 180 185 190  
 Glu Ser Arg Asn Leu Trp Arg Glu Val Thr Arg Tyr Leu Arg Leu Gly  
 195 200 205  
 Asp Ile Asp Ala Ala Thr Glu Gln Lys Arg His Leu Glu Glu Lys Gln  
 210 215 220  
 Arg Val Glu Glu Arg Lys Arg Glu Asn Leu Arg Thr Pro Trp Lys Pro  
 225 230 235 240  
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<210> 5991  
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 <212> DNA  
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<210> 5992

<211> 301

<212> PRT

<213> Homo sapiens

<400> 5992

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			20					25					30		
Val	Val	Phe	Asp	Glu	Ala	Asp	Arg	Leu	Phe	Glu	Met	Gly	Phe	Ala	Glu
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Leu	Phe	Ser	Ala	Thr	Leu	Pro	Lys	Leu	Leu	Val	Glu	Phe	Ala	Arg	Ala
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Gly	Leu	Thr	Glu	Pro	Val	Leu	Ile	Arg	Leu	Asp	Val	Asp	Thr	Lys	Leu
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Asn	Glu	Gln	Leu	Lys	Thr	Ser	Phe	Phe	Leu	Val	Arg	Glu	Asp	Thr	Lys
			100					105						110	
Ala	Ala	Val	Leu	Leu	His	Leu	Leu	His	Asn	Val	Val	Arg	Pro	Gln	Asp
		115					120						125		
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			165					170						175	
Lys	Cys	Ser	Thr	Leu	Ile	Val	Thr	Asp	Leu	Ala	Ala	Arg	Gly	Leu	Asp
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<212> PRT

<213> Homo sapiens

<400> 6000

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&lt;211&gt; 2490

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6001

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&lt;210&gt; 6002

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6002

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&lt;211&gt; 3107

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6003

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<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004

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Pro	Leu	Ser	Ala	Phe	Gln
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 <212> DNA  
 <213> Homo sapiens

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&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6006

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&lt;210&gt; 6007

&lt;211&gt; 693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 6007

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&lt;210&gt; 6008

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6008

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 Gly Lys Met Val Lys Lys Val Cys Pro Cys Asn Gln Leu Cys Arg Thr  
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 Ser Ser Thr Asn Thr Val Gly Ala Thr Val Asn Ser Gln Ala Ala Gln  
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 Ala Gln Pro Pro Ala Met Thr Ser Ser Arg Lys Gly Thr Phe Thr Asp  
 65 70 75 80  
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 Ser Gly Arg Arg Gly Ser Lys Gly His Met Asn Tyr Glu Gly Pro Gly  
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 Ser Asn Leu Gly Gly Ser Ala Pro Ile Ser Ala Ala Ser Ala Thr Ser  
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 <212> PRT  
 <213> Homo sapiens

<400> 6010  
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 Glu Thr Tyr Ser Asn Arg Val Ser Ser Ile Ser Pro Gly Ser Ala Thr  
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 Arg Ala Phe Arg Arg Met Gln Val Trp Asp Ala Cys Ser Glu Ala Leu  
 115 120 125  
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 Gly His Asn Ser Gly Val Arg Gln Ala Val Gly Ile Gln Asn Val Ser  
 210 215 220  
 Trp Asn Tyr Asp Gln Ser Ala Val Val Ala Thr Leu His Leu Ser Glu  
 225 230 235 240  
 Ala Thr Glu Asn Asn Val Ala Trp Gln Arg Phe Leu Pro Ser Gly Pro  
 245 250 255  
 Ile Ala Leu Leu Pro Leu Ser Asp Thr Leu Ser Ser Leu Val Trp Ser



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 Asp Phe Ile Asp Thr Ala Gly Ala Met Leu Gln Tyr Pro Val Ser Leu  
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 355 360 365  
 His Arg Val His Pro Leu Ala Gly Gln Gly Val Asn Met Gly Phe Gly  
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 420 425 430  
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&lt;211&gt; 1331

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6011

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&lt;210&gt; 6012

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6012

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			20					25					30		
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
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Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Lys	Val	Glu	Cys	Thr	Pro	Ser	Gln
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Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
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Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
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Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
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Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
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Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
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<210> 6014

<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

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Ala	Tyr	Thr	Asp	Ala	Ala	Ser	Leu	Glu	Val	His	Leu	Ser	Thr	His	Thr
			20					25					30		
Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
			35				40					45			
Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	His	Asn	Pro	Pro
			50			55					60				
Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala
65					70				75					80	
Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala
			85				90						95		
Gln	Ala	Gln	Ala	Gln	Ala	Ser	Gln	Ala	Ser	Gln	Gln	Gln	Gln	Gln	Gln



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          100          105          110
Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro His Phe Gln Ser
      115          120          125
Pro Gly Ala Ala Pro Gln Gly Gly Gly Gly Asp Ser Asn Pro Asn
      130          135          140
Pro Pro Pro Gln Cys Ser Phe Asp Leu Thr Pro Tyr Lys Thr Ala Glu
145          150          155          160
His His Lys Asp Ile Cys Leu Thr Val Thr Thr Ser Thr Ile Gln Val
      165          170          175
Glu His Leu Ala Ser Ser
      180

```

&lt;210&gt; 6015

&lt;211&gt; 612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6015

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480
gccagtgaga gaacagtcac acgataaagg cacagcacag cagttgggtg tctcttttta
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acctggcatg gc
612

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&lt;210&gt; 6016

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6016

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Met Glu Arg Gly Lys Lys Ala Cys Arg Leu Arg Arg Arg Ala His Arg
  1          5          10          15
Pro Arg Ser Pro Glu Arg Leu Pro Ala Ser Gln Gly Ile Ser Arg Gly
      20          25          30
Arg Cys Lys Leu Asn Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
      35          40          45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

```



					50						55						60						
Ser	His	Gly	Ser	Ser	Leu	Pro	Phe	Asn	Gln	Asp	Ser	Gln	Lys	Pro	Ala								
65						70						75						80					
Phe	Tyr	Asn	Ile	Phe	Leu	Lys	Lys	Ser	His	Ser	Phe	Gln	Ser	Leu	Leu								
					85						90						95						
Gln	Tyr	Ile																					

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<210> 6017
<211> 2091
<212> DNA
<213> Homo sapiens
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240
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300
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420
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480
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1200

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 2091

&lt;210&gt; 6018

&lt;211&gt; 537

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6018

Pro	Ala	Lys	Phe	Asn	Phe	Ala	Ser	Asp	Val	Leu	Asp	His	Trp	Ala	Asp
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Met	Glu	Lys	Ala	Gly	Lys	Arg	Leu	Pro	Ser	Pro	Ala	Leu	Trp	Trp	Val
			20					25					30		
Asn	Gly	Lys	Gly	Lys	Glu	Leu	Met	Trp	Asn	Phe	Arg	Glu	Leu	Ser	Glu
		35					40					45			
Asn	Ser	Gln	Gln	Ala	Ala	Asn	Val	Leu	Ser	Gly	Ala	Cys	Gly	Leu	Gln
		50				55					60				
Arg	Gly	Asp	Arg	Val	Ala	Val	Met	Leu	Pro	Arg	Val	Pro	Glu	Trp	Trp
65				70						75				80	
Leu	Val	Ile	Leu	Gly	Cys	Ile	Arg	Ala	Gly	Leu	Ile	Phe	Met	Pro	Gly
			85						90					95	
Thr	Ile	Gln	Met	Lys	Ser	Thr	Asp	Ile	Leu	Tyr	Arg	Leu	Gln	Met	Ser
			100					105					110		
Lys	Ala	Lys	Ala	Ile	Val	Ala	Gly	Asp	Glu	Val	Ile	Gln	Glu	Val	Asp
		115					120					125			
Thr	Val	Ala	Ser	Glu	Cys	Pro	Ser	Leu	Arg	Ile	Lys	Leu	Leu	Val	Ser



130		135		140
Glu Lys Ser Cys Asp Gly Trp	Leu Asn Phe Lys Lys Leu Leu Asn Glu			
145	150	155	160	
Ala Ser Thr Thr His His Cys Val Glu Thr Gly Ser Gln Glu Ala Ser				
	165	170	175	
Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu				
	180	185	190	
His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp				
	195	200	205	
Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly				
	210	215	220	
Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly				
225	230	235	240	
Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile				
	245	250	255	
Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro				
	260	265	270	
Ile Val Tyr Arg Met Leu Leu Gln Gln Asp Leu Ser Ser Tyr Lys Phe				
	275	280	285	
Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu				
	290	295	300	
Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe				
305	310	315	320	
Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met				
	325	330	335	
Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val				
	340	345	350	
Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly				
	355	360	365	
Asp Ile Gly Ile Arg Val Lys Pro Ile Arg Pro Ile Gly Ile Phe Ser				
	370	375	380	
Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp				
385	390	395	400	
Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe				
	405	410	415	
Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg				
	420	425	430	
Ile Gly Pro Ser Glu Val Glu Asn Ala Leu Met Lys His Pro Ala Val				
	435	440	445	
Val Glu Thr Ala Val Ile Ser Ser Pro Asp Pro Val Arg Gly Glu Val				
	450	455	460	
Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro				
465	470	475	480	
Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala				
	485	490	495	
Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys				
	500	505	510	
Thr Val Thr Gly Lys Ile Gln Arg Ala Lys Leu Arg Asp Lys Glu Trp				
	515	520	525	
Lys Met Ser Gly Lys Ala Arg Ala Gln				
530	535			

&lt;210&gt; 6019

&lt;211&gt; 3002



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6019

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1500



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gt  
3002

&lt;210&gt; 6020



&lt;211&gt; 387

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6020

```

Met Ala Ala Ile Pro Ala Leu Asp Pro Glu Ala Glu Pro Ser Met Asp
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Val Ile Leu Val Gly Ser Ser Glu Leu Ser Ser Ser Val Ser Pro Gly
      20           25           30
Thr Gly Arg Asp Leu Ile Ala Tyr Glu Val Lys Ala Asn Gln Arg Asn
      35           40           45
Ile Glu Asp Ile Cys Ile Cys Cys Gly Ser Leu Gln Val His Thr Gln
      50           55           60
His Pro Leu Phe Glu Gly Gly Ile Cys Ala Pro Cys Lys Asp Lys Phe
      65           70           75           80
Leu Asp Ala Leu Phe Leu Tyr Asp Asp Asp Gly Tyr Gln Ser Tyr Cys
      85           90           95
Ser Ile Cys Cys Ser Gly Glu Thr Leu Leu Ile Cys Gly Asn Pro Asp
      100          105          110
Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
      115          120          125
Gly Thr Ser Gly Lys Val His Ala Met Ser Asn Trp Val Cys Tyr Leu
      130          135          140
Cys Leu Pro Ser Ser Arg Ser Gly Leu Leu Gln Arg Arg Arg Lys Trp
      145          150          155          160
Arg Ser Gln Leu Lys Ala Phe Tyr Asp Arg Glu Ser Glu Asn Pro Leu
      165          170          175
Glu Met Phe Glu Thr Val Pro Val Trp Arg Arg Gln Pro Val Arg Val
      180          185          190
Leu Ser Leu Phe Glu Asp Ile Lys Lys Glu Leu Thr Ser Leu Gly Phe
      195          200          205
Leu Glu Ser Gly Ser Asp Pro Gly Gln Leu Lys His Val Val Asp Val
      210          215          220
Thr Asp Thr Val Arg Lys Asp Val Glu Glu Trp Gly Pro Phe Asp Leu
      225          230          235          240
Val Tyr Gly Ala Thr Ala Pro Leu Gly His Thr Cys Asp Arg Pro Pro
      245          250          255
Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
      260          265          270
Lys Pro Gly Ser Pro Arg Pro Phe Phe Trp Met Phe Val Asp Asn Leu
      275          280          285
Val Leu Asn Lys Glu Asp Leu Asp Val Ala Ser Arg Phe Leu Glu Met
      290          295          300
Glu Pro Val Thr Ile Pro Asp Val His Gly Gly Ser Leu Gln Asn Ala
      305          310          315          320
Val Arg Val Trp Ser Asn Ile Pro Ala Ile Arg Ser Ser Arg His Trp
      325          330          335
Ala Leu Val Ser Glu Glu Glu Leu Ser Leu Leu Ala Gln Asn Lys Gln
      340          345          350
Ser Ser Lys Leu Ala Ala Lys Trp Pro Thr Lys Leu Val Lys Asn Cys
      355          360          365
Phe Leu Pro Leu Arg Glu Tyr Phe Lys Tyr Phe Ser Thr Glu Leu Thr
      370          375          380
Ser Ser Leu

```



385

&lt;210&gt; 6021

&lt;211&gt; 3145

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6021

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<211> 1096

<212> PRT

<213> Homo sapiens

<400> 6034

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Thr	Thr	Ser	Thr	Thr	Pro	Ala	Thr	Asn	Thr	Thr	Cys	Thr	Ala	Thr	Val
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Pro	Pro	Gln	Pro	Gln	Tyr	Ser	Tyr	His	Asp	Ile	Asn	Val	Tyr	Ser	Leu
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Ser	Glu	Glu	Ser	Arg	Met	Arg	Ile	Ala	Ala	His	His	Met	Met	Arg	Asn
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Ser	Ile	Ser	Thr	Asn	Leu	Lys	Asn	Ser	Phe	Ala	Ser	Ala	Leu	Arg	Thr
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Ala	Ser	Pro	Gln	Gln	Arg	Glu	Met	Met	Asp	Gln	Ala	Ala	Ala	Gln	Leu
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Lys Val Gly Gly Val Asp Pro Lys Gln Leu Ala Val Tyr Glu Glu Phe
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Ala Arg Asn Val Pro Gly Phe Leu Pro Thr Asn Asp Leu Ser Gln Pro
          290          295          300
Thr Gly Phe Leu Ala Gln Pro Met Lys Gln Ala Trp Ala Thr Asp Asp
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Val Ala Gln Ile Tyr Asp Lys Cys Ile Thr Glu Leu Glu Gln His Leu
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His Ala Ile Pro Pro Thr Leu Ala Met Asn Pro Gln Ala Gln Ala Leu
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Ile Ala Ala Leu Gly Leu Leu Gln Lys Ala Val Glu Gly Leu Leu Asp
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Ala Thr Ser Gly Ala Asp Ala Asp Leu Leu Leu Arg Tyr Arg Glu Cys
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His Leu Leu Val Leu Lys Ala Leu Gln Asp Gly Arg Ala Tyr Gly Ser
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Pro Trp Cys Asn Lys Gln Ile Thr Arg Cys Leu Ile Glu Cys Arg Asp
          420          425          430
Glu Tyr Lys Tyr Asn Val Glu Ala Val Glu Leu Leu Ile Arg Asn His
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Leu Val Asn Met Gln Gln Tyr Asp Leu His Leu Ala Gln Ser Met Glu
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Ile Leu Leu Val Asp Glu Arg Ser Val Ala His Val Thr Glu Ala Asp
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Gly Asn Ala Pro Glu Gly Leu Pro Gln Leu Met Glu Val Val Arg Ser
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Met His Ser Gly Ile Ser Gln Ala Ser Glu Tyr Asp Asp Pro Pro Gly
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His Ser Ala Ala Ala Gly Arg Asp Ser Thr Lys Ala Phe Ser Ala Phe
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Val Gly Gln Val Glu Leu Leu Glu Arg Lys Met His Gln Gln Gly Ile
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Leu Lys Thr Asp Asp Leu Ile Thr Arg Phe Phe Arg Leu Cys Thr Glu
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Pro Ala Ala Asn Pro Thr Met Ile Arg Ala Lys Cys Tyr His Asn Leu
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Asp Ala Phe Val Arg Leu Ile Ala Leu Leu Val Lys His Ser Gly Glu

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Ile	Val	Val	Gly	Val	Leu	Leu	Gln	Asp	His	Asp	Val	Arg	Gln	Ser	Glu						
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Phe	Gln	Gln	Leu	Pro	Tyr	His	Arg	Ile	Phe	Ile	Met	Leu	Leu	Leu	Glu						
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Thr	Ala	Phe	Cys	Asn	Thr	Phe	His	Ile	Leu	Arg	Pro	Thr	Lys	Ala	Pro						
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1090

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&lt;211&gt; 320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6035

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&lt;210&gt; 6036

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6036

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&lt;210&gt; 6037

&lt;211&gt; 3910

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6037

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<211> 214

<212> PRT

<213> Homo sapiens

<400> 6038

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Pro	Ala	Leu	Lys	Ile	Thr	Arg	Arg	Tyr	Ala	Phe	Ala	His	Ile	Leu	Thr
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Val	Leu	Gln	Cys	Ala	Thr	Val	Ile	Gly	Phe	Ser	Tyr	Trp	Ala	Ser	Glu
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Val	Tyr	Val	Thr	Phe	Ala	Val	Ser	Phe	Tyr	Leu	Val	Ala	Gly	Ala	Gly
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<210> 6040  
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 <212> PRT  
 <213> Homo sapiens

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Gln Val Trp	Ala Ala Glu Ser Ala	Leu Arg Gly Glu Pro	Leu Trp Ala		
35	40	45			
Gln Asn Val	Val Pro Glu Ala Glu Gly	Glu Asp Asp Pro Ala Gly	Glu		
50	55	60			
Ala Gln Ala	Gly Arg Leu Pro Leu Leu Pro	Cys Ala Arg Ala Tyr Val			
65	70	75	80		
Ser Pro Arg	Ala Pro Phe Tyr Arg Pro	Leu Ala Pro Glu Leu Arg	Ala		
	85	90	95		
Arg Gln Leu	Glu Leu Gly Ala Glu His	Ala Leu Leu Leu Asp Ala	Ala		
	100	105	110		
Gly Gln Val	Phe Ser Trp Gly Gly Arg His	Gly Gln Leu Gly His			
115	120	125			
Gly Thr Leu	Glu Ala Glu Leu Glu Pro Arg	Leu Leu Glu Ala Leu Gln			
130	135	140			
Gly Leu Val	Met Ala Glu Val Ala Ala Gly	Gly Trp His Ser Val Cys			
145	150	155	160		
Val Ser Glu	Thr Gly Asp Ile Tyr Ile Trp	Gly Trp Asn Glu Ser Gly			
	165	170	175		
Gln Leu Ala	Leu Pro Thr Arg Asn Leu Ala	Glu Asp Gly Glu Thr Val			
	180	185	190		
Ala Arg Glu	Ala Thr Glu Leu Asn Glu Asp	Gly Ser Gln Val Lys Arg			
195	200	205			
Thr Gly Gly	Ala Glu Asp Gly Ala Pro Ala	Pro Phe Ile Ala Val Gln			
210	215	220			
Pro Phe Pro	Ala Leu Leu Asp Leu Pro Met	Gly Ser Asp Ala Val Lys			
225	230	235	240		
Ala Ser Cys	Gly Ser Arg His Thr Ala Val	Val Thr Arg Thr Gly Glu			
	245	250	255		
Leu Tyr Thr	Trp Gly Trp Gly Lys Tyr Gly	Gln Leu Gly His Glu Asp			
	260	265	270		
Thr Thr Ser	Leu Asp Arg Pro Arg Val Glu	Tyr Phe Val Asp Lys			
	275	280	285		
Gln Leu Gln	Val Lys Ala Val Thr Cys Gly	Pro Trp Asn Thr Tyr Val			
	290	295	300		
Tyr Ala Val	Glu Lys Gly Lys Ser				
305	310				

&lt;210&gt; 6041

&lt;211&gt; 291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6041

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120

cggttgagc agcaaaagca gcagataatg gcagctttaa actcccagac tgccgtgcag  
180

ttccagcagt atgcagccca acagtatcca gggaactacg aacagcagca aattctcatc  
240

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291



<210> 6042  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 6042  
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 Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln Gln Lys Gln Gln  
 35 40 45  
 Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr  
 50 55 60  
 Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile  
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 His

<210> 6043  
 <211> 558  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
 ctccctggccc agcacagggg cggtgccacc cacattcggc ccgggtcttg cctaatacat  
 240  
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 420  
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 558

<210> 6044  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 6044

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Cys Tyr Leu Ser Asn Val Asp Gly Gly Glu His Pro Cys Pro Arg Leu
      20           25           30
Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
      35           40           45
Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
      50           55           60
Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
65           70           75           80
Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
      85           90           95
Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
      100          105          110
Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
      115          120          125
Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
      130          135          140
Thr Leu Cys Leu Asp Ile Ser Tyr
145           150

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&lt;210&gt; 6045

&lt;211&gt; 1916

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6045

```

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180
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300
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420
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480
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660
gagatgcccg cagagggcaa ggcagagcgc aagccccatg actgtgagtc ctctactgtt
720
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780

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 1916

&lt;210&gt; 6046

&lt;211&gt; 457

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6046

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			20					25					30		
Glu	Val	Ile	Ala	Val	Val	Met	Asp	Val	Phe	Thr	Asp	Ile	Asp	Ile	Phe
			35					40				45			
Arg	Asp	Leu	Gln	Glu	Ile	Cys	Arg	Lys	Gln	Gly	Val	Ala	Val	Tyr	Ile
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Leu	Leu	Asp	Gln	Ala	Leu	Leu	Ser	Gln	Phe	Leu	Asp	Met	Cys	Met	Asp



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Leu	Lys	Val	His	Pro	Glu	Gln	Glu	Lys	Leu	Met	Thr	Val	Arg	Thr	Ile
				85					90					95	
Thr	Gly	Asn	Ile	Tyr	Tyr	Ala	Arg	Ser	Gly	Thr	Lys	Ile	Ile	Gly	Lys
		100						105					110		
Val	His	Glu	Lys	Phe	Thr	Leu	Ile	Asp	Gly	Ile	Arg	Val	Ala	Thr	Gly
		115					120					125			
Ser	Tyr	Ser	Phe	Thr	Trp	Thr	Asp	Gly	Lys	Leu	Asn	Ser	Ser	Asn	Leu
	130					135					140				
Val	Ile	Leu	Ser	Gly	Gln	Val	Val	Glu	His	Phe	Asp	Leu	Glu	Phe	Arg
145					150					155					160
Ile	Leu	Tyr	Ala	Gln	Ser	Lys	Pro	Ile	Ser	Pro	Lys	Leu	Leu	Ser	His
				165					170					175	
Phe	Gln	Ser	Ser	Asn	Lys	Phe	Asp	His	Leu	Thr	Asn	Arg	Lys	Pro	Gln
			180					185					190		
Ser	Lys	Glu	Leu	Thr	Leu	Gly	Asn	Leu	Leu	Arg	Met	Arg	Leu	Ala	Arg
		195					200					205			
Leu	Ser	Ser	Thr	Pro	Arg	Lys	Ala	Asp	Leu	Asp	Pro	Glu	Met	Pro	Ala
	210					215					220				
Glu	Gly	Lys	Ala	Glu	Arg	Lys	Pro	His	Asp	Cys	Glu	Ser	Ser	Thr	Val
225					230					235					240
Ser	Glu	Glu	Asp	Tyr	Phe	Ser	Ser	His	Arg	Asp	Glu	Leu	Gln	Ser	Arg
			245						250					255	
Lys	Ala	Ile	Asp	Ala	Ala	Thr	Gln	Thr	Glu	Pro	Gly	Glu	Glu	Met	Pro
		260						265					270		
Gly	Leu	Ser	Val	Ser	Glu	Val	Gly	Thr	Gln	Thr	Ser	Ile	Thr	Thr	Ala
		275					280					285			
Cys	Ala	Gly	Thr	Gln	Thr	Ala	Val	Ile	Thr	Arg	Ile	Ala	Ser	Ser	Gln
	290					295					300				
Thr	Thr	Ile	Trp	Ser	Arg	Ser	Thr	Thr	Thr	Gln	Thr	Asp	Met	Asp	Glu
305					310					315					320
Asn	Ile	Leu	Phe	Pro	Arg	Gly	Thr	Gln	Ser	Thr	Glu	Gly	Ser	Pro	Val
			325						330					335	
Ser	Lys	Met	Ser	Val	Ser	Arg	Ser	Ser	Ser	Leu	Lys	Ser	Ser	Ser	Ser
		340						345					350		
Val	Ser	Ser	Gln	Gly	Ser	Val	Ala	Ser	Ser	Thr	Gly	Ser	Pro	Ala	Ser
		355					360						365		
Ile	Arg	Thr	Thr	Asp	Phe	His	Asn	Pro	Gly	Tyr	Pro	Lys	Tyr	Leu	Gly
	370					375					380				
Thr	Pro	His	Leu	Glu	Leu	Tyr	Leu	Ser	Asp	Ser	Leu	Arg	Asn	Leu	Asn
385					390					395					400
Lys	Glu	Arg	Gln	Phe	His	Phe	Ala	Gly	Ile	Arg	Ser	Arg	Leu	Asn	His
			405						410					415	
Met	Leu	Ala	Met	Leu	Ser	Arg	Arg	Thr	Leu	Phe	Thr	Glu	Asn	His	Leu
			420					425					430		
Gly	Leu	His	Ser	Gly	Asn	Phe	Ser	Arg	Val	Asn	Leu	Leu	Ala	Val	Arg
		435					440					445			
Asp	Val	Ala	Leu	Tyr	Pro	Ser	Tyr	Gln							
	450						455								

&lt;210&gt; 6047

&lt;211&gt; 773

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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 180  
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<210> 6048

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6048

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Arg	Ser	Cys	Arg	Pro	Pro	Gly	Ser	Ser	Ser	Gly	Ser	Pro	Ser	Ser	Thr
			20					25				30			
Gly	Thr	Thr	Leu	Glu	Lys	Ser	Cys	Leu	His	His	Cys	Ser	Gly	Gly	Gly
		35					40					45			
His	Leu	Pro	Ser	Ala	Cys	Leu	Gly	Ala	Arg	Arg	Ser	Ser	Ser	Leu	Leu
	50					55					60				
Gly	Tyr	Gly	Ser	Cys	Arg	Asp	Thr	Gln	Ser	Trp	Thr	Pro	Asp	Pro	Leu
65				70					75					80	
Pro	His	Pro	Pro	Ser	Leu	Ser	Pro	Gln	Ser	Leu	Leu	Tyr	Ser	Gln	Ala
			85					90						95	
Met	Arg	Ser	Pro	Ile	Ser	His	Gln	Glu	Leu	Thr	Arg	Pro	Leu	Gly	Lys
			100				105						110		
Glu	Ala	Ala	Arg	Arg	Arg	Cys	Gly	His	Thr	Val	Ala	Leu	Ser	Ala	Arg
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Asp



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 <211> 479  
 <212> DNA  
 <213> Homo sapiens

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 360  
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<210> 6050  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Ser Thr  
 50 55 60  
 Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe  
 65 70 75 80  
 Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys  
 85 90 95  
 Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys  
 100 105 110  
 Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala  
 115 120 125  
 Ala Thr Ser Gln Glu Gln Gln Leu Lys Asn Lys Ser Ile Leu Ile Ser  
 130 135 140  
 Ser Val Gly Ser Val His His Ala Asp Gly Leu Ala Glu Ser Ser  
 145 150 155

<210> 6051  
 <211> 2404  
 <212> DNA  
 <213> Homo sapiens



&lt;400&gt; 6051

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420  
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&lt;210&gt; 6052

&lt;211&gt; 518

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6052

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&lt;211&gt; 3257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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<211> 382

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<213> Homo sapiens

<400> 6054

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&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6056

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&lt;211&gt; 3924

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6057

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&lt;210&gt; 6058

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



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<400> 6058
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 35          40          45
Val Asn Arg Arg Arg His Asn Ser Ser Asp Gly Phe Asp Ser Ala Ile
 50          55          60
Gly Arg Pro Asn Gly Gly Asn Phe Gly Arg Lys Glu Lys Asn Gly Trp
 65          70          75          80
Arg Thr His Gly Arg Asn Gly Thr Glu Asn Ile Asn His Arg Gly Gly
 85          90          95
Tyr His Gly Gly Ser Ser Arg Ser Arg Ser Ser Ile Phe His Ala Gly
 100         105         110
Lys Ser Gln Gly Leu His Glu Asn Asn Ile Pro Asp Asn Glu Thr Gly
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Arg Lys Glu Asp Lys Arg Glu Arg Lys Gln Phe Glu Ala Glu Asp Phe
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Pro Ser Leu Asn Pro Glu Tyr Glu Arg Glu Pro Asn His Asn Lys Ser
 145         150         155         160
Leu Ala Ala Gly Val Trp Gly Leu His Ala Gln Thr His Thr Tyr Pro
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Thr Lys Lys Ile Ser Gln Ala Pro Leu Leu Glu Tyr Pro Pro Asn Pro
 180         185         190
Lys Ser Arg Ala Pro Arg Met Leu Val Ile Lys Lys Gly Asn Thr Lys
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Asp Leu Gln Leu Ser Gly Phe Pro Val Val Gly Asn Leu Pro Ser Gln
 210         215         220
Pro Val Lys Asn Gly Thr Gly Pro Ser Val Tyr Lys Gly Leu Val Pro
 225         230         235         240
Lys Pro Ala Ala Pro Thr Lys Pro Thr Gln Trp Lys Ser Gln Thr
 245         250         255
Lys Glu Asn Lys Val Gly Thr Ser Phe Pro His Glu Ser Thr Phe Gly
 260         265         270
Val Gly Asn Phe Asn Ala Phe Lys Ser Thr Ala Lys Asn Phe Ser Pro
 275         280         285
Ser Thr Asn Ser Val Lys Glu Cys Asn Arg Ser Asn Ser Ser Ser Pro
 290         295         300
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 305         310         315         320
Arg Thr Asp Lys Lys Ser Glu Phe Leu Lys Ala Leu Lys Arg Asp Arg
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Val Glu Glu Glu His Glu Asp Glu Ser Arg Ala Gly Ser Glu Lys Asp
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Asp Asp Ser Phe Asn Leu His Asn Ser Asn Ser Thr His Gln Glu Arg
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Asp Ile Asn Arg Asn Phe Asp Glu Asn Glu Ile Pro Gln Glu Asn Gly
 370         375         380
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 385         390         395         400
Gln Thr Asp Val Leu Ser Ser Ser Leu Glu Ala Glu His Arg Leu Leu
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Ile Cys Asp Phe Lys Phe Gly Pro Trp Lys Asn Ser Thr Phe Lys Pro
465          470          475          480
Thr Thr Glu Asn Asp Asp Thr Glu Thr Ser Ser Ser Asp Thr Ser Asp
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Asp Asp Asp Val
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&lt;210&gt; 6059

&lt;211&gt; 1442

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6059

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<210> 6060

<211> 313

<212> PRT

<213> Homo sapiens

<400> 6060

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			20					25					30		
Ile	Ser	Tyr	Thr	Ile	Thr	Ile	Phe	Gly	Asn	Val	Ser	Ile	Met	Met	Val
		35					40					45			
Cys	Ile	Leu	Asp	Pro	Lys	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Thr
	50					55					60				
Asn	Leu	Ser	Ile	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Thr	Thr	Val	Pro	His
65					70				75						80
Met	Leu	Val	Asn	Ile	Gly	Cys	Asn	Lys	Lys	Thr	Ile	Ser	Tyr	Ala	Gly
				85					90					95	
Cys	Val	Ala	His	Leu	Ile	Ile	Phe	Leu	Ala	Leu	Gly	Ala	Thr	Glu	Cys
			100					105					110		
Leu	Leu	Leu	Ala	Val	Met	Ser	Phe	Asp	Arg	Tyr	Val	Ala	Val	Cys	Arg
			115				120					125			
Pro	Leu	His	Tyr	Val	Val	Ile	Met	Asn	Tyr	Trp	Phe	Cys	Leu	Arg	Met
	130					135					140				
Ala	Ala	Phe	Ser	Trp	Leu	Ile	Gly	Phe	Gly	Asn	Ser	Val	Leu	Gln	Ser
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				165					170					175	
Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr
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Lys	Pro	Ile	Glu	Ala	Glu	Leu	Phe	Phe	Phe	Ser	Val	Leu	Ile	Leu	Leu
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				245					250					255	
Tyr	Met	Tyr	Leu	Gln	Pro	Pro	Ser	Ser	Thr	Ser	Lys	Asp	Trp	Gly	Lys



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&lt;210&gt; 6061

&lt;211&gt; 1582

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6061

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<210> 6062

<211> 226

<212> PRT

<213> Homo sapiens

<400> 6062

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			20					25					30		
Arg	Pro	Arg	Asp	Leu	Leu	Gln	Arg	Tyr	Asp	Ser	Lys	Pro	Ile	Val	Asp
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Leu	Ile	Gly	Ala	Met	Glu	Thr	Gln	Ser	Glu	Pro	Ser	Glu	Leu	Glu	Leu
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Asp	Asp	Val	Val	Ile	Thr	Asn	Pro	His	Ile	Glu	Ala	Ile	Leu	Glu	Asn
65					70					75					80
Glu	Asp	Trp	Ile	Glu	Asp	Ala	Ser	Gly	Leu	Met	Ser	His	Cys	Ile	Ala
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Ile	Leu	Lys	Ile	Cys	His	Thr	Leu	Thr	Glu	Lys	Leu	Val	Ala	Met	Thr
			100					105					110		
Met	Gly	Ser	Gly	Ala	Lys	Met	Lys	Thr	Ser	Ala	Ser	Val	Ser	Asp	Ile
	115					120						125			
Ile	Val	Val	Ala	Lys	Arg	Ile	Ser	Pro	Arg	Val	Asp	Asp	Val	Val	Lys
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Ser	Met	Tyr	Pro	Pro	Leu	Asp	Pro	Lys	Leu	Leu	Asp	Ala	Arg	Thr	Thr
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Ala	Leu	Leu	Leu	Ser	Val	Ser	His	Leu	Val	Leu	Val	Thr	Arg	Asn	Ala
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Cys	His	Leu	Thr	Gly	Gly	Leu	Asp	Trp	Ile	Asp	Gln	Ser	Leu	Ser	Ala
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<210> 6063

<211> 2286



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6063

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&lt;210&gt; 6064

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6064

Xaa	Arg	Val	Lys	Gly	Ala	Gly	Cys	Ser	Cys	Gly	Ser	Arg	Ala	Met	Ala
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Glu	Glu	Gln	Gly	Arg	Glu	Arg	Asp	Ser	Val	Pro	Lys	Pro	Ser	Val	Leu
			20					25				30			
Phe	Leu	His	Pro	Asp	Leu	Gly	Val	Gly	Gly	Ala	Glu	Arg	Leu	Val	Leu
		35				40					45				
Asp	Ala	Ala	Leu	Ala	Leu	Gln	Ala	Arg	Gly	Cys	Ser	Val	Lys	Ile	Trp
	50				55					60					
Thr	Ala	His	Tyr	Asp	Pro	Gly	His	Cys	Phe	Ala	Glu	Ser	Arg	Glu	Leu
65					70				75					80	
Pro	Val	Arg	Cys	Ala	Gly	Asp	Trp	Leu	Pro	Arg	Gly	Leu	Gly	Trp	Gly
			85					90				95			
Gly	Arg	Gly	Ala	Ala	Val	Cys	Ala	Tyr	Val	Arg	Met	Val	Phe	Leu	Ala
			100					105				110			
Leu	Tyr	Val	Leu	Phe	Leu	Ala	Asp	Glu	Glu	Phe	Asp	Val	Val	Val	Cys
		115				120					125				
Asp	Gln	Val	Ser	Ala	Cys	Ile	Pro	Val	Phe	Arg	Leu	Ala	Arg	Arg	Arg
	130					135					140				
Lys	Lys	Ile	Leu	Phe	Tyr	Cys	His	Phe	Pro	Asp	Leu	Leu	Leu	Thr	Lys



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145          150          155          160
Arg Asp Ser Phe Leu Lys Arg Leu Tyr Arg Ala Pro Ile Asp Trp Ile
          165          170          175
Glu Glu Tyr Thr Thr Gly Met Ala Asp Cys Ile Leu Val Asn Ser Gln
          180          185          190
Phe Thr Ala Ala Val Phe Lys Glu Thr Phe Lys Ser Leu Ser His Ile
          195          200          205
Asp Pro Asp Val Leu Tyr Pro Ser Leu Asn Val Thr Ser Phe Asp Ser
          210          215          220
Val Val Pro Glu Xaa Ser Trp Met Thr
225          230

```

&lt;210&gt; 6065

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6065

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1080

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 1980  
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<210> 6066

<211> 80

<212> PRT

<213> Homo sapiens

<400> 6066

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Arg	Val	Leu	Arg	Gly	Val	Asp	Asp	Leu	Asp	Phe	Phe	Ile	Gly	Asp	Glu
		20						25					30		
Ala	Ile	Asp	Lys	Pro	Thr	Tyr	Ala	Thr	Lys	Trp	Pro	Ile	Arg	His	Gly
		35					40					45			
Ile	Ile	Glu	Asp	Trp	Asp	Leu	Met	Glu	Arg	Phe	Met	Glu	Gln	Val	Val
	50					55					60				
Phe	Lys	Tyr	Leu	Arg	Ala	Glu	Pro	Glu	Asp	His	Tyr	Phe	Leu	Met	Gly
65					70					75				80	

<210> 6067

<211> 406



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6067

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406

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&lt;210&gt; 6068

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6068

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Ser Cys Cys Asp Tyr Tyr Ser Pro Phe Ser Thr Leu Ile Ile Pro Arg
20           25           30
Ser Leu Phe Leu Ser Gly Asn Val Ser Ser Arg Arg Met Arg Thr Ala
35           40           45
Ser Arg Ser Ser Glu Pro Pro Ala Cys Pro Arg His Trp Pro Cys Pro
50           55           60
Pro Gly Leu Pro Phe Gly Gln Gly Ala Val Ala Arg Ala Ala Pro Cys
65           70           75           80
Pro Ala Tyr Ser His Ser Ala Val Gly Arg Pro Pro Leu Pro Arg Lys
85           90           95
Arg Gly Ala Val Ser Ser Gly Arg Leu His Arg Arg Gly Thr Gly Ala
100          105          110
Met Trp Trp Glu Gly
115

```

&lt;210&gt; 6069

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6069

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atcatcccga tggctactga actgattggg agaagccacc gctaccaccg aaaagagaac
120
ctggagtact gtatcatggt cattgggggtc cccaacgtgg gcaagtcctc cctcatcaac
180

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<210> 6070

<211> 148

<212> PRT

<213> Homo sapiens

<400> 6070

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Asn	Val	Lys	Gln	Ile	Ile	Pro	Met	Val	Thr	Glu	Leu	Ile	Gly	Arg	Ser
			20					25					30		
His	Arg	Tyr	His	Arg	Lys	Glu	Asn	Leu	Glu	Tyr	Cys	Ile	Met	Val	Ile
		35					40					45			
Gly	Val	Pro	Asn	Val	Gly	Lys	Ser	Ser	Leu	Ile	Asn	Ser	Leu	Arg	Arg
		50				55					60				
Gln	His	Leu	Arg	Lys	Gly	Lys	Ala	Thr	Arg	Val	Gly	Gly	Glu	Pro	Gly
65					70				75					80	
Ile	Thr	Arg	Ala	Val	Met	Ser	Lys	Ile	Gln	Val	Glu	Ser	Ser	Gly	Ala
				85					90					95	
Arg	Pro	Ser	Thr	Leu	Ser	Arg	Ala	Leu	Gln	Ala	Ser	Gly	Thr	Cys	Arg
			100					105					110		
Pro	Leu	Cys	Gly	Phe	Arg	Leu	Leu	Thr	Thr	Leu	Pro	Ser	Pro	Pro	Leu
		115					120					125			
Ser	Val	Pro	Ala	Glu	His	Pro	Arg	Gly	Arg	His	Cys	Pro	Ala	Leu	Ile
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Pro	Gln	Ser	Ser												
145															

<210> 6071

<211> 2633

<212> DNA

<213> Homo sapiens

<400> 6071

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 120  
 ttcttctttg tcacaaaaa cagaaaaatg cacaacagag ggacaacaaa agcctcctac  
 180  
 aagagtccta ccaaaatacc tgggatatag taatcactca atgaatataa actgcactta  
 240  
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tcaaaagtgtg gatttttttt tctcagtgc ataagaaaga tgacttactt cacaagttgg  
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 2633

&lt;210&gt; 6072

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6072

Met	Ala	Gln	Ala	Arg	Arg	His	Met	Leu	Val	Ile	Ser	Ala	Arg	Trp	Glu
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Ala	Glu	Ala	Gly	Gly	Ser	Phe	Glu	Val	Arg	Ser	Ser	Arg	Pro	Ala	Trp
			20						25				30		
Pro	Thr	Trp	Arg	Asn	Pro	Ile	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Asn	Lys
		35				40					45				
Ala	Trp	Trp	Arg	Val	Pro	Val	Val	Pro	Ala	Thr	Arg	Glu	Ala	Glu	Ala
	50					55					60				
Gly	Glu	Ser	Leu	Glu	Pro	Gly	Arg	Arg	Arg	Phe	Gln				
65					70					75					

&lt;210&gt; 6073

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6073

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 180



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 387

<210> 6074

<211> 69

<212> PRT

<213> Homo sapiens

<400> 6074

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Arg	Gly	Leu	Cys	Thr	Ala	Ser	Phe	Pro	Pro	His	Leu	Ser	Pro	Ala	Arg
			20					25					30		
Ala	Pro	Thr	Gly	Pro	Phe	Ser	Pro	Arg	Met	Lys	Pro	Ala	Gly	Ser	Val
		35						40					45		
Asn	Asp	Met	Ala	Leu	Asp	Ala	Phe	Asp	Leu	Asp	Arg	Met	Lys	Gln	Glu
	50					55					60				
Ile	Leu	Glu	Glu	Val											
65															

<210> 6075

<211> 4668

<212> DNA

<213> Homo sapiens

<400> 6075

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2280



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3900



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&lt;210&gt; 6076

&lt;211&gt; 601

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6076

Met	Ala	Gln	Lys	Lys	Tyr	Leu	Gln	Ala	Lys	Leu	Thr	Gln	Phe	Leu	Arg
1				5					10					15	
Glu	Asp	Arg	Ile	Gln	Leu	Trp	Lys	Pro	Pro	Tyr	Thr	Glu	Glu	Asn	Lys
			20					25						30	
Glu	Val	Gly	Leu	Ala	Leu	Lys	Asp	Leu	Ala	Lys	Gln	Tyr	Ser	Asp	Arg
		35					40					45			
Leu	Glu	Cys	Cys	Glu	Asn	Glu	Val	Glu	Lys	Val	Ile	Glu	Glu	Ile	Arg
	50					55					60				
Cys	Lys	Ala	Ile	Glu	Arg	Gly	Thr	Gly	Asn	Asp	Asn	Tyr	Arg	Thr	Thr
65					70					75					80
Gly	Ile	Ala	Thr	Ile	Glu	Val	Phe	Leu	Pro	Pro	Arg	Leu	Lys	Lys	Asp
				85					90					95	
Arg	Lys	Asn	Leu	Leu	Glu	Thr	Arg	Leu	His	Ile	Thr	Gly	Arg	Glu	Leu
			100					105					110		
Arg	Ser	Lys	Ile	Ala	Glu	Thr	Phe	Gly	Leu	Gln	Glu	Asn	Tyr	Ile	Lys
		115					120				125				
Ile	Val	Ile	Asn	Lys	Lys	Gln	Leu	Gln	Leu	Gly	Lys	Thr	Leu	Glu	Glu
	130					135					140				
Gln	Gly	Val	Ala	His	Asn	Val	Lys	Ala	Met	Val	Leu	Glu	Leu	Lys	Gln
145					150					155				160	
Ser	Glu	Glu	Asp	Ala	Arg	Lys	Asn	Phe	Gln	Leu	Glu	Glu	Glu	Glu	Gln



```

      165      170      175
Asn Glu Ala Lys Leu Lys Glu Lys Gln Ile Gln Arg Thr Lys Arg Gly
      180      185      190
Leu Glu Ile Leu Ala Lys Arg Ala Ala Glu Thr Val Val Asp Pro Glu
      195      200      205
Met Thr Pro Tyr Leu Asp Ile Ala Asn Gln Thr Gly Arg Ser Ile Arg
      210      215      220
Ile Pro Pro Ser Glu Arg Lys Ala Leu Met Leu Ala Met Gly Tyr His
225      230      235      240
Glu Lys Gly Arg Ala Phe Leu Lys Arg Lys Glu Tyr Gly Ile Ala Leu
      245      250      255
Pro Cys Leu Leu Asp Ala Asp Lys Tyr Phe Cys Glu Cys Cys Arg Glu
      260      265      270
Leu Leu Asp Thr Val Asp Asn Tyr Ala Val Leu Gln Leu Asp Ile Val
      275      280      285
Trp Cys Tyr Phe Arg Leu Glu Gln Leu Glu Cys Leu Asp Asp Ala Glu
      290      295      300
Lys Lys Leu Asn Leu Ala Gln Lys Cys Phe Lys Asn Cys Tyr Gly Glu
305      310      315      320
Asn His Gln Arg Leu Val His Ile Lys Gly Asn Cys Gly Lys Glu Lys
      325      330      335
Val Leu Phe Leu Arg Leu Tyr Leu Leu Gln Gly Ile Arg Asn Tyr His
      340      345      350
Ser Gly Asn Asp Val Glu Ala Tyr Glu Tyr Leu Asn Arg His Val Ser
      355      360      365
Ser Leu Lys Ser Tyr Ile Leu Ile His Gln Lys Trp Thr Ile Cys Cys
      370      375      380
Ser Trp Gly Leu Leu Pro Arg Lys Xaa Arg Leu Gly Leu Arg Ala Cys
385      390      395      400
Asp Gly Asn Val Asp His Ala Ala Thr His Ile Thr Asn Arg Arg Glu
      405      410      415
Glu Leu Ala Gln Ile Arg Lys Glu Glu Lys Glu Lys Lys Arg Arg Arg
      420      425      430
Leu Glu Asn Ile Arg Phe Leu Lys Gly Met Gly Tyr Ser Thr His Ala
      435      440      445
Ala Gln Gln Ile Leu Leu Ser Asn Pro Gln Met Trp Trp Leu Asn Asp
      450      455      460
Ser Asn Pro Glu Thr Asp Asn Arg Gln Glu Ser Pro Ser Gln Glu Asn
465      470      475      480
Ile Asp Arg Leu Val Tyr Met Gly Phe Asp Ala Leu Val Ala Glu Ala
      485      490      495
Ala Leu Arg Val Phe Arg Gly Asn Val Gln Leu Ala Ala Gln Thr Leu
      500      505      510
Ala His Asn Gly Gly Ser Leu Pro Pro Glu Leu Pro Leu Ser Pro Glu
      515      520      525
Asp Ser Leu Ser Pro Pro Ala Thr Ser Pro Ser Asp Ser Ala Gly Thr
      530      535      540
Ser Ser Ala Ser Thr Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu
545      550      555      560
Ile Leu Glu Asp Ile Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr
      565      570      575
Leu Glu Asp Glu Glu Ile Ile Ile Ala Glu Tyr Leu Ser Tyr Val Glu
      580      585      590
Asn Arg Lys Ser Ala Thr Lys Lys Asn

```



595

600

&lt;210&gt; 6077

&lt;211&gt; 2093

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6077

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60  
tctggcggat cggggaatcg gatcaaggcg agaggatccg gcaggggaagg agcttcgggg  
120  
ccggggggttg ggccgcacat ttacgtgcgc gaagcggagg accgggagct ggtgacgatg  
180  
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240  
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300  
gaaggggaag atggggaagg tgatttccta gtagtgggta gcattagaaa actggcatca  
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540  
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720  
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780  
agtgaggatg atggtgtggt gatgaccttc tctagtgtca aagtttctga ggaagtggag  
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1380



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 1800  
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 1860  
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 1920  
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 1980  
 gaacctgtgc ctaatacacg caagggcgct gtcccgccca accccgcctt taaacgccac  
 2040  
 aaataaagag cattgttacc gccaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa  
 2093

<210> 6078

<211> 213

<212> PRT

<213> Homo sapiens

<400> 6078

Arg	Pro	Gly	Arg	Ser	Pro	Gly	Ser	Gly	Arg	Ser	Arg	Ala	Val	Gly	Cys
1				5					10					15	
Leu	Arg	Ala	Val	Ser	Gly	Gly	Ser	Gly	Asn	Arg	Ile	Lys	Ala	Arg	Gly
			20					25					30		
Ser	Gly	Arg	Glu	Gly	Ala	Ser	Gly	Pro	Gly	Val	Gly	Pro	His	Ile	Tyr
		35				40					45				
Val	Arg	Glu	Ala	Glu	Asp	Arg	Glu	Leu	Val	Thr	Met	Ala	Gly	Pro	Gln
	50				55				60						
Pro	Leu	Ala	Leu	Gln	Leu	Glu	Gln	Leu	Leu	Asn	Pro	Arg	Pro	Ser	Glu
65				70				75						80	
Ala	Asp	Pro	Glu	Ala	Asp	Pro	Glu	Glu	Ala	Thr	Ala	Ala	Arg	Val	Ile
			85					90					95		
Asp	Arg	Phe	Asp	Glu	Gly	Glu	Asp	Gly	Glu	Gly	Asp	Phe	Leu	Val	Val
		100					105					110			
Gly	Ser	Ile	Arg	Lys	Leu	Ala	Ser	Ala	Ser	Leu	Leu	Asp	Thr	Asp	Lys
		115				120						125			
Arg	Tyr	Cys	Gly	Lys	Thr	Thr	Ser	Arg	Lys	Ala	Trp	Asn	Glu	Asp	His
	130					135				140					
Trp	Glu	Gln	Thr	Leu	Pro	Gly	Ser	Ser	Asp	Glu	Glu	Ile	Ser	Asp	Glu
145				150				155						160	
Glu	Gly	Ser	Gly	Asp	Glu	Asp	Ser	Glu	Gly	Leu	Gly	Leu	Glu	Glu	Tyr
			165					170					175		
Asp	Glu	Asp	Asp	Leu	Gly	Ala	Ala	Glu	Glu	Gln	Glu	Cys	Gly	Asp	Gln



	180		185		190										
Gly	Glu	Gln	Glu	Asp	Glu	Lys	Pro	Leu	Cys	Lys	Asn	Thr	Gly	Leu	Gln
	195		200		205										
Cys	Pro	Glu	Tyr	Gln											
	210														

&lt;210&gt; 6079

&lt;211&gt; 651

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6079

```

ggccagtcct cgcctcgct ccgtcagttt cccctgctg aactactggg tgcggagcgg
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gtgcgtgcgc agcctgcgca tgtgcatagg ggtcgactgc cgctgcggtg catgaggcgg
120
catgcgcagc ggggccgtgg gtgtacgcgg cgcagcgcgg cagtcctgat ggcccggcat
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240
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300
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360
gacatatttc ctgtcaccaa caaagatttc agggattttg tcaggagaaa aaagtatcgg
420
acagaagctg agatgtttgg atggagcttt gtctttgagg actttgtctc tgatgagctg
480
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540
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600
ttacacgtga gctggaatga cgcccgctgcc tactgtgctt ggcggggaaa a
651

```

&lt;210&gt; 6080

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6080

Leu	Met	Ala	Arg	His	Gly	Leu	Pro	Leu	Leu	Pro	Leu	Leu	Ser	Leu	Leu
1				5				10					15		
Val	Gly	Ala	Trp	Leu	Lys	Leu	Gly	Asn	Gly	Gln	Ala	Thr	Ser	Met	Val
			20				25					30			
Gln	Leu	Gln	Gly	Gly	Arg	Phe	Leu	Met	Gly	Thr	Asn	Ser	Pro	Asp	Ser
		35				40					45				
Arg	Asp	Gly	Glu	Gly	Pro	Val	Arg	Glu	Ala	Thr	Val	Lys	Pro	Phe	Ala
	50				55				60						
Ile	Asp	Ile	Phe	Pro	Val	Thr	Asn	Lys	Asp	Phe	Arg	Asp	Phe	Val	Arg
65				70					75				80		
Glu	Lys	Lys	Tyr	Arg	Thr	Glu	Ala	Glu	Met	Phe	Gly	Trp	Ser	Phe	Val
			85					90				95			
Phe	Glu	Asp	Phe	Val	Ser	Asp	Glu	Leu	Arg	Asn	Lys	Ala	Thr	Gln	Pro



```

          100          105          110
Met Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg
          115          120          125
Gln Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro
          130          135          140
Val Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg
145          150          155          160
Gly Lys

```

&lt;210&gt; 6081

&lt;211&gt; 655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6081

```

gataatgatc aggaacctcc ctattcaatg ataacattac acgaaatggc agaaacagat
60
gaaggatggg tggatgttgt ccagtcttta attagagtta ttccactgga agatccactg
120
ggaccagctg ttataacatt gttactagat gaatgtccat tgcccactaa agatgcactc
180
cagaaattga ctgaaattct caatttaaag ggagaagtag cttgccagga ctcaagccat
240
cctgccaaac acaggaacac atctgcagtc ctaggctgct tggccgagaa actagcaggt
300
cctgcaagta taggtttact tagcccagga atactggaat acttgctaca gtgtctgaag
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420
acaagtgaat ataaattgac tatttctgaa tccagtatta gtgaccggct tgtcacattg
480
gagtcctggg ctaatgatcc tgattatctg aaacgtcaag ttggtttctg tgcccagtgg
540
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600
agtagcatta gggccatgct gaatagcaat gatgtcagcg agtacctgaa gatct
655

```

&lt;210&gt; 6082

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6082

```

Asp Asn Asp Gln Glu Pro Pro Tyr Ser Met Ile Thr Leu His Glu Met
 1          5          10          15
Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser Leu Ile Arg
          20          25          30
Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile Thr Leu Leu
          35          40          45
Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys Leu Thr
          50          55          60
Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser Ser His

```



```

65          70          75          80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu
          85          90          95
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu
          100          105          110
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met
          115          120          125
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn
          130          135          140
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu
145          150          155          160
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe
          165          170          175
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln
          180          185          190
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn
          195          200          205
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile
          210          215

```

&lt;210&gt; 6083

&lt;211&gt; 358

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6083

```

nnacgcgtga ggggacaggc tgagaaaaaa gaattacgac ataaaataga tgaaatggaa
60
gaaaaagaac aggagctcca ggcaaaaata gaagctttgc aagctgataa tgatttcacc
120
aatgaaaggc taacagctttt acaagagaag ctgatcgtcg aaggcatctt aaccaaagcg
180
gtagaagaaa caaagctttc aaaagaaaat cagacaagag caaaagaatc tgatttttca
240
gatactctga gtccaagcaa ggaaaaaagc agtgacgaca ctacagacgc ccaaatggat
300
gagcaagacc taaatgagcc tcttgccaaa gtgtcccttt taaaagatga cttgcagg
358

```

&lt;210&gt; 6084

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6084

```

Met Glu Glu Lys Glu Gln Glu Leu Gln Ala Lys Ile Glu Ala Leu Gln
1          5          10          15
Ala Asp Asn Asp Phe Thr Asn Glu Arg Leu Thr Ala Leu Gln Glu Lys
          20          25          30
Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu
          35          40          45
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
          50          55          60
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

```



65		70		75		80									
Met	Asp	Glu	Gln	Asp	Leu	Asn	Glu	Pro	Leu	Ala	Lys	Val	Ser	Leu	Leu
		85				90							95		
Lys	Asp	Asp	Leu	Gln											
			100												

&lt;210&gt; 6085

&lt;211&gt; 2307

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6085

```

nntccggatc agttcgagtg cctctaccca taccctgttc atcacccatg tgacagacag
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120
ggttacgaaa cagtgggttg ccttgggtgat gttctttaca tccaatgta ctggtggcat
180
cacatagagt cactactaaa tgggggggatt accatcactg tgaacttctg gtataagggg
240
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300
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360
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420
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480
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&lt;210&gt; 6086

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6086

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<212> PRT

<213> Homo sapiens

<400> 6088

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<213> Homo sapiens

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&lt;210&gt; 6090

&lt;211&gt; 839

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6090

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5272



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&lt;210&gt; 6091

&lt;211&gt; 1336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6091



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&lt;210&gt; 6092

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6092

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Ser Arg His Glu Gly Pro Ser Pro Pro Arg Asp Leu Gly Thr Ser Gly
65      70      75      80
Pro Ser Arg Ala Ala Ser His Lys Pro Ser Asn Glu Gln Arg Asp Ala
      85           90           95
Gly Gln Gln Leu Gln Leu His Leu Leu Pro Ala Leu Lys Gly Ser Phe
      100      105      110
Pro Ala Ser Val Leu Ser
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&lt;210&gt; 6093

&lt;211&gt; 1998

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6093

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&lt;210&gt; 6094

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6094

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Trp	Asn	Pro	Lys	Pro	Leu	Pro	Arg	Leu	Gln	Ala	Pro	Asp	Gly	Leu	Leu
	50				55				60						
Ser	Cys	Asn	Phe	Leu	Gly	Glu	Glu	Thr	Phe	Ser	Ser	Phe	Pro	Phe	Leu
65				70				75					80		
Val	His	Pro	Cys	Thr	Leu	Val	Leu	Ser	Gln	Pro	Leu	Pro	His	Ile	Val



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Pro Asp Ser Arg Gly Thr Ser Ser Leu His Arg Ala Ala Ala Gly
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Leu Arg Ala Glu Pro Val Gly Ala Glu Ala Leu Ala Pro Glu Val Gln
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Pro Leu Ser Leu Gly Pro Leu Gly
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 <212> DNA  
 <213> Homo sapiens

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<210> 6096  
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 <212> PRT  
 <213> Homo sapiens

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<400> 6096
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      20              25              30
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      35              40              45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Val Val Trp Gly Glu Cys
      50              55              60
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
65              70              75              80
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
      85              90              95
Lys

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<210> 6097  
 <211> 2404



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6097

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&lt;210&gt; 6098

&lt;211&gt; 631

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6098

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Arg	Cys	Gln	Glu	Met	Gly	Ala	Arg	Ala	Ala	Lys	Ala	Val	Glu	Ser	Gly
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&lt;210&gt; 6099

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6099

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 3180  
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 3540  
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 3780  
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 3900  
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 3957

&lt;210&gt; 6100

&lt;211&gt; 1102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6100

Gly Ala Ala Gly Ala Gly Thr Gly Gly Ala Gly Pro Ala Gly Arg Leu  
 1 5 10 15  
 Leu Pro Pro Pro Ala Pro Gly Ser Pro Ala Ala Pro Ala Ala Val Ser  
 20 25 30  
 Pro Ala Ala Gly Gln Pro Arg Pro Pro Ala Pro Ala Ser Arg Gly Pro



	35					40					45				
Met	Pro	Ala	Arg	Ile	Gly	Tyr	Tyr	Glu	Ile	Asp	Arg	Thr	Ile	Gly	Lys
	50					55					60				
Gly	Asn	Phe	Ala	Val	Val	Lys	Arg	Ala	Thr	His	Leu	Val	Thr	Lys	Ala
65					70					75					80
Lys	Val	Ala	Ile	Lys	Ile	Ile	Asp	Lys	Thr	Gln	Leu	Asp	Glu	Glu	Asn
				85					90					95	
Leu	Lys	Lys	Ile	Phe	Arg	Glu	Val	Gln	Ile	Met	Lys	Met	Leu	Cys	His
			100					105					110		
Pro	His	Ile	Ile	Arg	Leu	Tyr	Gln	Val	Met	Glu	Thr	Glu	Arg	Met	Ile
		115					120					125			
Tyr	Leu	Val	Thr	Glu	Tyr	Ala	Ser	Gly	Gly	Glu	Ile	Phe	Asp	His	Leu
	130					135					140				
Val	Ala	His	Gly	Arg	Met	Ala	Glu	Lys	Glu	Ala	Arg	Arg	Lys	Phe	Lys
145					150					155					160
Gln	Ile	Val	Thr	Ala	Val	Tyr	Phe	Cys	His	Cys	Arg	Asn	Ile	Val	His
				165					170					175	
Arg	Asp	Leu	Lys	Ala	Glu	Asn	Leu	Leu	Leu	Asp	Ala	Asn	Leu	Asn	Ile
			180					185					190		
Lys	Ile	Ala	Asp	Phe	Gly	Phe	Ser	Asn	Leu	Phe	Thr	Pro	Gly	Gln	Leu
		195					200					205			
Leu	Lys	Thr	Trp	Cys	Gly	Ser	Pro	Pro	Tyr	Ala	Ala	Pro	Glu	Leu	Phe
	210					215					220				
Glu	Gly	Lys	Glu	Tyr	Asp	Gly	Pro	Lys	Val	Asp	Ile	Trp	Ser	Leu	Gly
225					230					235					240
Val	Val	Leu	Tyr	Val	Leu	Val	Cys	Gly	Ala	Leu	Pro	Phe	Asp	Gly	Ser
				245					250					255	
Thr	Leu	Gln	Asn	Leu	Arg	Ala	Arg	Val	Leu	Ser	Gly	Lys	Phe	Arg	Ile
			260					265					270		
Pro	Phe	Phe	Met	Ser	Thr	Glu	Cys	Glu	His	Leu	Ile	Arg	His	Met	Leu
		275					280					285			
Val	Leu	Asp	Pro	Asn	Lys	Arg	Leu	Ser	Met	Glu	Gln	Ile	Cys	Lys	His
	290					295					300				
Lys	Trp	Met	Lys	Leu	Gly	Asp	Ala	Asp	Pro	Asn	Phe	Asp	Arg	Leu	Ile
305					310					315					320
Ala	Glu	Cys	Gln	Gln	Leu	Lys	Glu	Glu	Arg	Gln	Val	Asp	Pro	Leu	Asn
				325					330					335	
Glu	Asp	Val	Leu	Leu	Ala	Met	Glu	Asp	Met	Gly	Leu	Asp	Lys	Glu	Gln
			340					345					350		
Thr	Leu	Gln	Ala	Glu	Gln	Ala	Gly	Thr	Ala	Met	Asn	Ile	Ser	Val	Pro
		355					360					365			
Gln	Val	Gln	Leu	Ile	Asn	Pro	Glu	Asn	Gln	Ile	Val	Glu	Pro	Asp	Gly
	370					375					380				
Thr	Leu	Asn	Leu	Asp	Ser	Asp	Glu	Gly	Glu	Glu	Pro	Ser	Pro	Glu	Ala
385				390						395					



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465          470          475          480
Leu Leu Asn Gly Met Gly Pro Leu Gly Arg Arg Ala Ser Asp Gly Gly
          485          490          495
Ala Asn Ile Gln Leu His Ala Gln Gln Leu Leu Lys Arg Pro Arg Gly
          500          505          510
Pro Ser Pro Leu Val Thr Met Thr Pro Ala Val Pro Ala Val Thr Pro
          515          520          525
Val Asp Glu Glu Ser Ser Asp Gly Glu Pro Asp Gln Glu Ala Val Gln
          530          535          540
Ser Ser Thr Tyr Lys Asp Ser Asn Thr Leu His Leu Pro Thr Glu Arg
545          550          555          560
Phe Ser Pro Val Arg Arg Phe Ser Asp Gly Ala Ala Ser Ile Gln Ala
          565          570          575
Phe Lys Ala His Leu Glu Lys Met Gly Asn Asn Ser Ser Ile Lys Gln
          580          585          590
Leu Gln Gln Glu Cys Glu Gln Leu Gln Lys Met Tyr Gly Gly Gln Ile
          595          600          605
Asp Glu Arg Thr Leu Glu Lys Thr Gln Gln Gln His Met Leu Tyr Gln
          610          615          620
Gln Glu Gln His His Gln Ile Leu Gln Gln Gln Ile Gln Asp Ser Ile
630          635          640
Cys Pro Pro Gln Pro Ser Pro Pro Leu Gln Ala Ala Cys Glu Asn Gln
          645          650          655
Pro Ala Leu Leu Thr His Gln Leu Gln Arg Leu Arg Ile Gln Pro Ser
          660          665          670
Ser Pro Pro Pro Asn His Pro Asn Asn His Leu Phe Arg Gln Pro Ser
          675          680          685
Asn Ser Pro Pro Pro Met Ser Ser Ala Met Ile Gln Pro His Gly Ala
          690          695          700
Ala Ser Ser Ser Gln Phe Gln Gly Leu Pro Ser Arg Ser Ala Ile Phe
705          710          715          720
Gln Gln Gln Pro Glu Asn Cys Ser Ser Pro Pro Asn Val Ala Leu Thr
          725          730          735
Cys Leu Gly Met Gln Gln Pro Ala Gln Ser Gln Gln Val Thr Ile Gln
          740          745          750
Val Gln Glu Pro Val Asp Met Leu Ser Asn Met Pro Gly Thr Ala Ala
          755          760          765
Gly Ser Ser Gly Arg Gly Ile Ser Ile Ser Pro Ser Ala Gly Gln Met
          770          775          780
Gln Met Gln His Arg Thr Asn Leu Met Ala Thr Leu Ser Tyr Gly His
785          790          795          800
Arg Pro Leu Ser Lys Gln Leu Ser Ala Asp Ser Ala Glu Ala His Ser
          805          810          815
Leu Asn Val Asn Arg Phe Ser Pro Ala Asn Tyr Asp Gln Ala His Leu
          820          825          830
His Pro His Leu Phe Ser Asp Gln Ser Arg Gly Ser Pro Ser Ser Tyr
          835          840          845
Ser Pro Ser Thr Gly Val Gly Phe Ser Pro Thr Gln Ala Leu Lys Val
          850          855          860
Pro Pro Leu Asp Gln Phe Pro Thr Phe Pro Pro Ser Ala His Gln Gln
865          870          875          880
Pro Pro His Tyr Thr Thr Ser Ala Leu Gln Gln Ala Leu Leu Ser Pro
          885          890          895
Thr Pro Pro Asp Tyr Thr Arg His Gln Gln Val Pro His Ile Leu Gln

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          900          905          910
Gly Leu Leu Ser Pro Arg His Ser Leu Thr Gly His Ser Asp Ile Arg
          915          920          925
Leu Pro Pro Thr Glu Phe Ala Gln Leu Ile Lys Arg Gln Gln Gln Gln
          930          935          940
Arg Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Tyr Gln Glu Leu
          945          950          955          960
Phe Arg His Met Asn Gln Gly Asp Ala Gly Ser Leu Ala Pro Ser Leu
          965          970          975
Gly Gly Gln Ser Met Thr Glu Arg Gln Ala Leu Ser Tyr Gln Asn Ala
          980          985          990
Asp Ser Tyr His His Thr Ile Gln Asn Ser Asp Asp Ala Tyr Val Gln
          995          1000          1005
Leu Asp Asn Leu Pro Gly Met Ser Leu Val Ala Gly Lys Ala Leu Ser
          1010          1015          1020
Ser Ala Arg Met Ser Asp Ala Val Leu Ser Gln Ser Ser Leu Met Gly
          1025          1030          1035          1040
Ser Gln Gln Phe Gln Asp Gly Glu Asn Glu Glu Cys Gly Ala Ser Leu
          1045          1050          1055
Gly Gly His Glu His Pro Asp Leu Ser Asp Gly Ser Gln His Leu Asn
          1060          1065          1070
Ser Ser Cys Tyr Pro Ser Thr Cys Ile Thr Asp Ile Leu Leu Ser Tyr
          1075          1080          1085
Lys His Pro Glu Val Ser Phe Ser Met Glu Gln Ala Gly Val
          1090          1095          1100

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&lt;210&gt; 6101

&lt;211&gt; 1447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6101

```

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ttattactgt acctaataaa cagcccagcg tgggtattcc tattcactta gtagcctccc
120
catctagaaa tatactccgt gatctttctt gatggccaga ctgtgtaaaa ttcatacagt
180
gtttactaca gggatcccca aatattgtta gttgaatgaa caaacacaca tttcaaggag
240
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300
ccagtgtatt ttaggacagc agattcagat taatgcgctg ggactgaatg caaatagtaa
360
aattacaaat ataaagtaaa aatttggaac ctttgccaca gagaggaata ataaattgat
420
ttaataattt gaaagaactg taaggtttag gttttgttct ttttttagt gcgactgaga
480
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540
gccaaaggaaa agatggaagg ataaatcagt gtaataaaaa ggagcacttc tttttcgcca
600
acagaagtaa aggtaaagggt taagtgtctg agttaacgaa tggattgttg acctctgggg
660

```



aggggtgctcc catcagctca gctttgtgac gacctaagaa tatcccttcc acacctttcc  
 720  
 tgatccaatc gttctggctg cataaaaacca cctaaatcaa tcaactgtta cacttccctt  
 780  
 agtgctagga catattcata taactcccac gtattaaatg aaaatacatc catctaaaaa  
 840  
 taaaacaaca agattgctgc tacaccaaga aaggatttta aaaaggcctg ttcacaagct  
 900  
 aagtgagggc cagaggaaag gtgttcgttt aaactgaaat tcgagctgcg ataacacctc  
 960  
 ctaatgcaat caaacgctgt tgcagcacac ttcttaggag atcgggttca acggcagggg  
 1020  
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 1080  
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 1140  
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 1200  
 ccaacgctga cggccgggt ctgaggtgc catgggaaga gcggtaggcc accctgctcc  
 1260  
 tctgatcacc ggaggacagg gacacattgt tcagggccat attcaaacac tgcccgcagt  
 1320  
 acttgctta cgtccctttg tgaaggcagg cccttcgcgg ctccccagat cagtccagcc  
 1380  
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 1440  
 agccgcc  
 1447

&lt;210&gt; 6102

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6102

Met	Ala	Leu	Asn	Asn	Val	Ser	Leu	Ser	Ser	Gly	Asp	Gln	Arg	Ser	Arg
1				5					10					15	
Val	Ala	Tyr	Arg	Ser	Ser	His	Gly	Asp	Leu	Arg	Pro	Arg	Ala	Ser	Ala
			20					25					30		
Leu	Ala	Met	Val	Ser	Gly	Asp	Gly	Phe	Leu	Val	Ser	Arg	Pro	Glu	Ala
		35				40					45				
Ile	His	Leu	Gly	Pro	Arg	Gln	Ala	Val	Arg	Pro	Ser	Val	Arg	Ala	Glu
	50				55					60					
Ser	Arg	Arg	Val	Asp	Gly	Gly	Gly	Arg	Ser	Pro	Arg	Glu	Pro	Asp	Gly
65				70				75						80	
Arg	Gly	Arg	Ser	Arg	Gln	Ala	Arg	Phe	Ser	Pro	Tyr	Pro	Ile	Pro	Ala
			85				90						95		
Val	Glu	Pro	Asp	Leu	Leu	Arg	Ser	Val	Leu	Gln	Gln	Arg	Leu	Ile	Ala
			100				105						110		
Leu	Gly	Gly	Val	Ile	Ala	Ala	Arg	Ile	Ser	Val					
		115					120								

&lt;210&gt; 6103

&lt;211&gt; 309



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6103

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 ctactgcttc ggccaggttg ccacagccac tgatgagaga cagctccagc cacaatggac  
 120  
 agaacctatg ccttgatgaa gaagattggg cagtccccag tgagagtcct gaaggagatt  
 180  
 gacggcttcg tectgaaccg cctgcagtac gccgtcatca gtgaggcctg gagactggtg  
 240  
 gaggaagaaa tagtatctcc tagcgacctc gacctgggtc tgtcagacgg gctgggcatg  
 300  
 cggtagcg  
 309

&lt;210&gt; 6104

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6104

Glu	Thr	Ala	Pro	Ala	Thr	Met	Asp	Arg	Thr	Tyr	Ala	Leu	Met	Lys	Lys
1				5					10					15	
Ile	Gly	Gln	Ser	Pro	Val	Arg	Val	Leu	Lys	Glu	Ile	Asp	Gly	Phe	Val
		20						25					30		
Leu	Asn	Arg	Leu	Gln	Tyr	Ala	Val	Ile	Ser	Glu	Ala	Trp	Arg	Leu	Val
		35					40					45			
Glu	Glu	Glu	Ile	Val	Ser	Pro	Ser	Asp	Leu	Asp	Leu	Val	Met	Ser	Asp
		50					55				60				
Gly	Leu	Gly	Met	Arg	Tyr	Ala									
65						70									

&lt;210&gt; 6105

&lt;211&gt; 1846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6105

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 60  
 caggggccag aaccggggat gcccccaac cctatgaact caacacagcc atcaactgca  
 120  
 gggatgaagt ggtgtctccc ctccatctg ctctgcaggg gtcctcagg ctcctatca  
 180  
 gccctccag ctgcctcagt tatctctgca ccccatctt cctcctccc acatcgcaaa  
 240  
 cgtcgagga cttccagcaa gtcggaggca ggggctaggg gtggaggcca gggttccaag  
 300  
 gaaaagggcc gagggagttg gggaggccgc caccaccacc accaccact gcctgcagca  
 360  
 ggcttcaaaa agcaacagcg caagttccag tatgggaatt attgcaaata ctatgggtac  
 420



cgcaatcctt cctgtgagga tgggcgcctt cgggtgttga agcctgagtg gtttcggggc  
480  
cgggacgtcc tagatctggg ctgcaatgtg ggccatctga ccctgagcat tgctgcaag  
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600  
caaaacatcc gacactacct ttccgaggag ctgcgtctcc caccacagac tttggaaggg  
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900  
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1680  
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1740  
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1800  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
1846

&lt;210&gt; 6106

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 6106

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Xaa Pro Ala Ala Ala Gly Ser Leu Thr Pro Arg Gly Gly Arg Leu Thr
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Ala Ala Ala Ala Gln Gly Pro Glu Pro Gly Met Pro Pro Asn Pro Met
 20           25           30
Asn Ser Thr Gln Pro Ser Thr Ala Gly Met Lys Trp Cys Leu Pro Phe
 35           40           45
His Leu Leu Cys Arg Gly Pro Ser Gly Ser Leu Ser Ala Pro Pro Ala
 50           55           60
Ala Ser Val Ile Ser Ala Pro Pro Ser Ser Ser Ser Arg His Arg Lys
 65           70           75           80
Arg Arg Arg Thr Ser Ser Lys Ser Glu Ala Gly Ala Arg Gly Gly Gly
 85           90           95
Gln Gly Ser Lys Glu Lys Gly Arg Gly Ser Trp Gly Gly Arg His His
 100          105          110
His His His Pro Leu Pro Ala Ala Gly Phe Lys Lys Gln Gln Arg Lys
 115          120          125
Phe Gln Tyr Gly Asn Tyr Cys Lys Tyr Tyr Gly Tyr Arg Asn Pro Ser
 130          135          140
Cys Glu Asp Gly Arg Leu Arg Val Leu Lys Pro Glu Trp Phe Arg Gly
 145          150          155          160
Arg Asp Val Leu Asp Leu Gly Cys Asn Val Gly His Leu Thr Leu Ser
 165          170          175          180
Ile Ala Cys Lys Trp Gly Pro Ser Arg Met Val Gly Leu Asp Ile Asp
 180          185          190
Ser Arg Leu Ile His Ser Ala Arg Gln Asn Ile Arg His Tyr Leu Ser
 195          200          205
Glu Glu Leu Arg Leu Pro Pro Gln Thr Leu Glu Gly Asp Pro Gly Ala
 210          215          220
Glu Gly Glu Glu Gly Thr Thr Thr Val Arg Lys Arg Ser Cys Phe Pro
 225          230          235          240
Ala Ser Leu Thr Ala Ser Arg Gly Pro Ile Ala Ala Pro Gln Val Pro
 245          250          255
Leu Asp Gly Ala Asp Thr Ser Val Phe Pro Asn Asn Val Val Phe Val
 260          265          270
Thr Gly Asn Tyr Val Leu Asp Arg Asp Asp Leu Val Glu Ala Gln Thr
 275          280          285
Pro Glu Tyr Asp Val Val Leu Cys Leu Ser Leu Thr Lys Trp Val His
 290          295          300
Leu Asn Trp Gly Asp Glu Gly Leu Lys Arg Met Phe Arg Arg Ile Tyr
 305          310          315          320
Arg His Leu Arg Pro Gly Gly Ile Leu Val Leu Glu Pro Gln Pro Trp
 325          330          335
Ser Ser Tyr Gly Lys Arg Lys Thr Leu Thr Glu Thr Ile Tyr Lys Asn
 340          345          350
Tyr Tyr Arg Ile Gln Leu Lys Pro Glu Gln Phe Ser Ser Tyr Leu Thr
 355          360          365
Ser Pro Asp Val Gly Phe Ser Ser Tyr Glu Leu Val Ala Thr Pro His
 370          375          380
Asn Thr Ser Lys Gly Phe Gln Arg Pro Val Tyr Leu Phe His Lys Ala
 385          390          395          400
Arg Ser Pro Ser His
          405

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<210> 6107  
 <211> 896  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
 gtggagtctc cccgaccttc acccgctctt tcagccttct catcattacc ctctgatgga  
 240  
 tgggggagtt cagttggctc ggggttgctt tggcctgcca ccaggtgggtc cacatgcccc  
 300  
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 360  
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 420  
 cctgccacca ccatcacctc attaccacaca ccctcaatga gggtgacatc agtgaccccc  
 480  
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 540  
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 600  
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 660  
 cggtacggac agggtagatc acaggctgag ggacagagca aagacccctg aggccggaca  
 720  
 cctgggggtcc tgccggggccc ctccccacga gagttccctg tgtctgtgcc aatcgttttc  
 780  
 gtctttcttt gccgcagttt cttttcctgt aaatcatggt taatgacatt aaccttctta  
 840  
 ccatacaggg ttagttgtgg ttgtgataaa taattactac cgttattaag caattg  
 896

<210> 6108  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 6108  
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 Gly Leu Ser Ser Asp Leu Arg Gly Ala Ser Gly Leu Leu Leu Pro Ala  
 20 25 30  
 Pro Ala Cys Leu Leu Gly Arg Pro Trp Met Ser Arg Arg Cys Ser Arg  
 35 40 45  
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro  
 50 55 60  
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly  
 65 70 75 80  
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp







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 tagaatcaga ggttggacac tatacataag gacaggctca catgggaggc tggaggtggg  
 1380  
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 1440  
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 1500  
 ctaccctcat acctatctcc ctccctccat ctccctagggg actggcgcca aatggtctct  
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 ccctgccaat tttggtatct tctctggcct ctccagtcct gcttactcct ctatttttaa  
 1620  
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 1740  
 ggcagaaata ttttctgggc tggggtagga ggaaggttgt tgcagccatc tactgctgct  
 1800  
 gtaccctagg aatatgggga catggacatg gtgtcccatg cccagatgat aaactgag  
 1860  
 ctgccaaaac atttttttaa atacaccca ggagcccaag ggggaagggc aatgcctacc  
 1920  
 cccagcgta tttttgggga gggagggctg tgcataggga catattcttt agaactctatt  
 1980  
 ttattaactg acctgttttg ggacctgtta cccaaataaa agatgtttct agacatctgt  
 2040  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa  
 2087

&lt;210&gt; 6110

&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6110

Met	Gly	Pro	Trp	Gly	Glu	Pro	Glu	Leu	Leu	Val	Trp	Arg	Pro	Glu	Gly
1				5				10						15	
Ser	Phe	Arg	Ala	Ser	Ser	Ala	Cys	Gly	Ala	Gly	Gly	Glu	Val	Gly	Gly
			20					25						30	
Pro	Gly	Ala	Ala	Ala	Gly	Leu	Thr	Leu	Leu	Cys	Ser	Leu	Val	Pro	Ile
			35					40						45	
Cys	Val	Leu	Arg	Arg	Pro	Gly	Ala	Asn	His	Glu	Gly	Ser	Ala	Ser	Arg
			50					55						60	
Gln	Lys	Ala	Leu	Ser	Leu	Val	Ser	Cys	Phe	Ala	Gly	Gly	Val	Phe	Leu
65					70					75					80
Ala	Thr	Cys	Leu	Leu	Asp	Leu	Leu	Pro	Asp	Tyr	Leu	Ala	Ala	Ile	Asp
			85							90					95
Glu	Ala	Leu	Ala	Ala	Leu	His	Val	Thr	Leu	Gln	Phe	Pro	Leu	Gln	Glu
			100							105				110	
Phe	Ile	Leu	Ala	Met	Gly	Phe	Phe	Leu	Val	Leu	Val	Met	Glu	Gln	Ile
			115					120						125	
Thr	Leu	Ala	Tyr	Lys	Glu	Gln	Ser	Gly	Pro	Ser	Pro	Leu	Glu	Glu	Thr
			130					135						140	
Arg	Ala	Leu	Leu	Gly	Thr	Val	Asn	Gly	Gly	Pro	Gln	His	Trp	His	Asp



```

145          150          155          160
Gly Pro Gly Val Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala
          165          170          175
Leu Arg Ala Cys Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe
          180          185          190
Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu
          195          200          205
Leu Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu
          210          215          220
Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly
225          230          235          240
Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly
          245          250          255
Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser
          260          265          270
Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu
          275          280          285
Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys
          290          295          300
Val Ile Leu Leu Leu Ala Gly Phe Ala Leu Leu Thr Gly Leu Leu Phe
305          310          315          320
Ile Gln Ile

```

&lt;210&gt; 6111

&lt;211&gt; 1706

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6111

```

nnagatctgc ctgcctctct gcccccaaag tgggtgggatt acaggtgtga gccactgctc
60
ccagccaaga aattctttat atgtagatac tattttcttg tcaagttcag atgttgga
120
taacttgcca ttgttcatt cttgtctttg ttgtttttca tataatagaa atcccccaa
180
tgttttatat cttttatgtc tttattttgt tttgttttgt ttttgagatg gagtttccct
240
cttgttgccc aggctggagt gnagtggcac agtctcggct cactgcaacc tccacttcct
300
gggttcaagc agttctcgtg ccgcagcctc ccaagtagct gggactacag gcatgcgcca
360
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420
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480
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600
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660
ttctggcagc tgcttgggtt tgccagacc ctgcctcccc tcccgcgggc caaccctag
720

```



tcccccttccct gtctccactt gcattcaggg gtggctgctg ttctgagaac attagaactg  
 780  
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 840  
 gtttagcccc cttattccac tgtggcattg ccgttctaag cagttacctg atgcctgctg  
 900  
 ctgaagagct gctcacagga ggcggcggcg gccctggcac tgccccttgc attaggtctt  
 960  
 gtgtttgatg tgttcttggt aatttacttt gtcagaacaa aatatttaag cgttgggttc  
 1020  
 aggaatttct tttagctccc catctggctg tgaaattcag gaaacctccc gttgcctagt  
 1080  
 aatcacccca tgtaggtgta cattgtgaca aagtgcattt gaccactaag gggccccctt  
 1140  
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 1200  
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 1260  
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 1380  
 ggcatccct ccagcgccag caccactgca acatatagac ctgagtgtta ttgtattttg  
 1440  
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 1500  
 gttttgttta ctgtaagttt gaaaataaaa atgaagaaaa aaaattccaa tgactgtgct  
 1560  
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 1620  
 gctgtgtcac tcctcctccc cccagtgct ttgtagtctc tcctatgtca taataaagct  
 1680  
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 1706

&lt;210&gt; 6112

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6112

Met	Ser	Leu	Phe	Cys	Phe	Val	Leu	Phe	Leu	Arg	Trp	Ser	Phe	Pro	Leu
1				5					10					15	
Val	Ala	Gln	Ala	Gly	Val	Xaa	Trp	His	Ser	Leu	Gly	Ser	Leu	Gln	Pro
		20						25					30		
Pro	Leu	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys	Arg	Ser	Leu	Pro	Ser	Ser
		35					40					45			
Trp	Asp	Tyr	Arg	His	Ala	Pro	Pro	Arg	Gln	Ala	Asn	Phe	Cys	Ile	Phe
	50					55					60				
Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Trp	Pro	Gly	Trp	Ser	Gln	Thr	Pro
65					70					75				80	
Asp	Leu	Arg	Arg	Ser	Thr	His	Leu	Ser	Val	Pro	Lys	Cys	Trp	Asp	Tyr
				85					90					95	
Arg	Arg	Glu	Pro	Pro	His	Leu	Ala	Tyr	Glu	Trp	Ser	Phe	Asn		



100

105

110

&lt;210&gt; 6113

&lt;211&gt; 1095

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6113

nncggccgcc aagcgatccc tgctccgcgc gacactgcgt gcccgcgcac gcagagaggc  
60  
ggtgacgcac ttacggcgg cagcgtaagt gcgtgacgct cgtcagtggc ttcagttcac  
120  
acgtggcgcc agcggaggca ggttgatgtg tttgtgcttc cttctacagc caatatgaaa  
180  
aggcctagta agtggggctg ggaggcgggc gtggaggggac ccacgtctgg aagttgctgc  
240  
agccaccacg acgctcttct acggctacgg ctttgtctct gctggtatgg ggggtgggagc  
300  
atacgcgtag gccttgcccc tatttctctg tagaaccgag agttggaagt ccctacggcg  
360  
atcatgttaa ccgcgcgggc tcattctgcg gaacgaagcc gggcagaggg tggggaagac  
420  
taggctagat ttctgtaagg aagcagcgtc tgagccaggt ttgaggcca atattttctt  
480  
tccgtggcca cgtgcagact ggcccagggt agagctgaga atcgctccc agactcagtg  
540  
ttcctctcct gccttatgat tcgtgctgtt tgacacgaag tggttgtcgt tttgtgtctc  
600  
atacgctgtt gtgtatgatc ccattctaatt attgtgaggg taagtgcagg gaattttgac  
660  
tccattctgg atctactgaa ttttaattctc tgggatttga aagtagcacg tatgtttgca  
720  
ttaggcattt cgcattagac ttaacgttag gtttggtagc caataacaca agaaaaggat  
780  
ataactccat agtgcgttaa ccagaacta atcatttggg ttaacagatt tgtgatgtgt  
840  
ttctttgtag agttaagaa agcaagtaaa cgcattgacct gccataagcg gtataaaatc  
900  
caaaaaaagg ttcgagaaca tcatcgaaaa ttaagaaagg aggctaaaaa gcgggggtcac  
960  
aagaagccta ggaaagaccc aggagttcca aacagtgtc cttttaagga ggctcttctt  
1020  
gaggaagctg agctaaggaa acagaggctt gaagaactaa aacagcagca gaaacttgac  
1080  
aggcagaagg aacta  
1095

&lt;210&gt; 6114

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6114

Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys



```

      1           5           10           15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys
      20           25           30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp
      35           40           45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu
      50           55           60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys
      65           70           75           80
Leu Asp Arg Gln Lys Glu Leu
      85

```

&lt;210&gt; 6115

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6115

```

gcgcgcctgg ccccgccagg gcctaagttc cctgcactcg cttccccgcc tgcgcgcgcc
60
gccgcgcgcc gcagccctcc ttctcgtggg cgctggggaa gaaactcgtc ggcggtcta
120
actgtggcgt cccagggcgg tggagggagc aacttcgggg gcacgtcctc gtaaatccc
180
tggaggacac tgaccctgta cccaccctc gaggccagaa gtcggttctt ttgggggaac
240
tgagggcgga gagcactcgc cccctgact tgcaaagttg gcgtctttac ttggcctccg
300
ggattctgcg catggcgtgt ctccaggctg ctgatgggca agacagatgt gccaggtcca
360
gaatgaactt gagaagagtt tgtagccatt cctgaatcac cttatactag t
411

```

&lt;210&gt; 6116

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6116

```

Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val
      1           5           10           15
Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
      20           25           30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
      35           40           45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
      50           55           60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
      65           70           75           80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
      85           90           95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala
      100          105          110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

```



115 120 125

Arg

<210> 6117  
 <211> 962  
 <212> DNA  
 <213> Homo sapiens

<400> 6117  
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 60  
 gtggaagacg gagaggaaac ctgcgccctg gcctctcact ccgggagctc aggtccaag  
 120  
 tcgggaggcg acaagatgtt ctccctcaag aagtggaaac cggtggccat gtggagctgg  
 180  
 gacgtggagt gcgatacgtg cgccatctgc aggtgccagg tgatggatgc ctgtcttaga  
 240  
 tgtcaagctg aaaacaaaca agaggactgt gttgtggtct ggggagaatg taatcattcc  
 300  
 ttccacaact gctgcatgtc cctgtgggtg aaacagaaca atcgtgccc tctctgccag  
 360  
 caggactggg tgggtccaaag aatcggcaaa tgagagtggg tagaaggctt cttagcgcag  
 420  
 ttgttcagag ccctgggtgga tcttgaatc cagtgcccta caaaggctag aacactacag  
 480  
 gggatgaatt cttcaaatag gagccgatgg atctgtggtc ctttgggact catcaaagcc  
 540  
 ttggttttagc attttgtcag ttttatcttc agaaattctc tgcgattaag aagataattt  
 600  
 attaaaggtg gtccttcta cctctgtggt gtgtgtcgcg cacacagctt agaagtgcta  
 660  
 taataaagga aagagctcca aattgaatca cttttataat ttacccattt ctatacaaca  
 720  
 ggcagtggaa gcagtttcag agaacttttt gcagcttat ggttgatcag ttaaaaaaga  
 780  
 atgttacagt aacaaataaa gtgcagttta aaacccaact cttactctta atttgttctt  
 840  
 aatacgtatt tttggcaggg agagggaaac gtccatgaaa tctttatgtg atataaggat  
 900  
 ttttaagttt ggccagtga cagggtaaat aaaatttaac ttttgagcat aaaaaaaaaa  
 960  
 aa  
 962

<210> 6118  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 6118  
 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His  
 1 5 10 15  
 Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu



```

      20              25              30
Lys Lys Trp Asn Ala Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
      35              40              45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys
      50              55              60
Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys
      65              70              75              80
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
      85              90              95
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
      100              105              110
Lys

```

<210> 6119  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

```

<400> 6119
accggttgac aacctcccta tggggaagct agatacagcc ccatggacat gcccactga
60
ccccacacc ccacacggac tgcacggaaa tatcacagta accatctctc agtcacagcg
120
tggccccaca gaactcatgc ctgcttgctt taaaccaccc aatgaaaact ccccatggga
180
aacctgcttg gataatactt tggaccccaa taaatgcttt aatccccaaa gtcctctgtc
240
tctgctctc tcttgccctt acccactggt tgagcatgtg tgtcccaaac ggccttgcaa
300
ggtgtgctgc cctgttcttt ctgggctctg tcaaggaatc aaactgcttc tgttatgtga
360
tgtgtcatgt tgtgc
375

```

<210> 6120  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

```

<400> 6120
Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His
1      5      10      15
Thr Pro His Gly Leu His Gly Asn Ile Thr Val Thr Ile Ser Gln Ser
20     25     30
Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
35     40     45
Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
50     55     60
Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
65     70     75     80
Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
85     90     95
Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu Leu

```



100  
Cys Asp Val Ser Cys Cys  
115

105

110

<210> 6121  
<211> 1039  
<212> DNA  
<213> Homo sapiens

<400> 6121  
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60  
ttgtaaacat tgatttgaat gatgacaaca ttgacagtgt ttgtaaactg ggaacagaca  
120  
aagaaacact ctcttctgc cacatttgtt ttgagctaaa tattgagggg gtaccaaagt  
180  
ctgatctctt gcacacaaaa tcattaaggg gccataaaga ctgctttgaa aaataccatt  
240  
taattgcaaa ccagggttgt cctcgatcta agctttcaaa aagtacttat gaagaagtta  
300  
aaaccatttt gagtaagaag ataaactgga ttgtgcagta tgcacaaaat aaggatctgg  
360  
attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggcataagc  
420  
cagaagaaaa attactccca cagtttgagt cccaagtacc aaaatattct gcaaaatgga  
480  
tagatggaag tgcagggtggc atctctaact gtacacaaag aattttggag cagagggaaa  
540  
atacagactt tggactttct atgttacaag attcagggtgc cactttatgt cgtaacagtg  
600  
tattgtggcc tcatagtcac aaccaggcac agaaaaaaga agagacaatc tctagtccag  
660  
aggctaattg ccagaccag catccacatt acagcagaga ggaataagtt tttgaagagt  
720  
taactacca agtgcaagaa aaagattctt tggcctcaca gctccatgtc cgccacgttg  
780  
ccatcgaaca gcttctgaag aactgttcta agttaccatg tctgcaagta gggcgaacag  
840  
gaatgaagtc gcacctacc ataaacaact gacctaaaca gacttacttc gtatgccctg  
900  
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960  
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1020  
aagcagatca ttatactct  
1039

<210> 6122  
<211> 221  
<212> PRT  
<213> Homo sapiens

<400> 6122  
Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn



```

1           5           10           15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe
      20           25           30
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
      35           40           45
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
      50           55           60
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
65           70           75           80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
      85           90           95
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
      100          105          110
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
      115          120          125
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
      130          135          140
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
145          150          155          160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
      165          170          175
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
      180          185          190
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala
      195          200          205
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
      210          215          220

```

&lt;210&gt; 6123

&lt;211&gt; 900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6123

```

ntgcatgcct gtataccaca gctactcggg aggctgaggc gggagaatcg cttgaaccca
60
ggaggcggag gttgcggtga gctgagatcg caccattgca ctccagcctg ggcaacaaga
120
gcgaaacaac aagagaaaaa aaaggaagct gccctctgcc caaaaccac gtcgaggtcc
180
ccaaacctgg gacccttagg tcttttctca cttagcgtgc ccaaccttct cctggcagga
240
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300
ctgagacacc atctccagat tcccatccac ttcccgaagg atttcttgtc tgtgatgctt
360
gaaaaaggaa gtttgtctgc catgcgtttc ctcaccgccg tgaacttgga gcatccagag
420
atgctggaga aagcgtcccc ggagctgtgg atgcgcgtct ggtcaagggt gagtgtgggg
480
ctctgggaat cctctgggag gaccttgat gactttctga ccttccccag gcacgttttc
540
agggtcatga tctgcccc gcccggggga tctactgtcc tccagtcac acccctctcc
600

```



ccgcaccgcc ttctgtctgt cttctcttct tcccagaatg aagacatcac cgagccgcag  
 660  
 agcatcctgg cggctgcaga gaaggctggt atgtctgcag aacaagccca gggacttctg  
 720  
 gaaaagatcg caacgccaaa ggtgaagaac cagctcaagg agaccactga ggcagcctcg  
 780  
 agatacggag cctttgggct gcccatcacc gtggcccatg tggatggcca aaccacatg  
 840  
 ttatttggct ctgaccggat ggagctgctg ggcacctgc tgggagagaa gtggatgggc  
 900

<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

Xaa	His	Ala	Cys	Ile	Pro	Gln	Leu	Leu	Gly	Arg	Leu	Arg	Arg	Glu	Asn
1				5					10					15	
Arg	Leu	Asn	Pro	Gly	Gly	Gly	Gly	Cys	Gly	Glu	Leu	Arg	Ser	His	His
		20						25					30		
Cys	Thr	Pro	Ala	Trp	Ala	Thr	Arg	Ala	Lys	Gln	Gln	Glu	Lys	Lys	Lys
	35					40						45			
Glu	Ala	Ala	Leu	Cys	Pro	Lys	Pro	Thr	Ser	Arg	Ser	Pro	Asn	Leu	Gly
	50					55					60				
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			85						90					95	
Asp	Leu	Lys	Leu	Leu	Arg	His	His	Leu	Gln	Ile	Pro	Ile	His	Phe	Pro
			100					105					110		
Lys	Asp	Phe	Leu	Ser	Val	Met	Leu	Glu	Lys	Gly	Ser	Leu	Ser	Ala	Met
	115						120					125			
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			165						170					175	
Arg	His	Val	Phe	Arg	Val	Met	Ile	Leu	Pro	Pro	Pro	Gly	Gly	Ser	Thr
		180						185					190		
Val	Leu	Pro	Val	Thr	Pro	Leu	Ser	Pro	His	Arg	Leu	Pro	Ala	Val	Phe
	195						200					205			
Ser	Ser	Ser	Gln	Asn	Glu	Asp	Ile	Thr	Glu	Pro	Gln	Ser	Ile	Leu	Ala
	210					215					220				
Ala	Ala	Glu	Lys	Ala	Gly	Met	Ser	Ala	Glu	Gln	Ala	Gln	Gly	Leu	Leu
225					230					235					240
Glu	Lys	Ile	Ala	Thr	Pro	Lys	Val	Lys	Asn	Gln	Leu	Lys	Glu	Thr	Thr
			245						250					255	
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His	Val	Asp	Gly	Gln	Thr	His	Met	Leu	Phe	Gly	Ser	Asp	Arg	Met	Glu
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 <211> 468  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

<400> 6126

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			20					25					30		
Glu	Glu	Glu	Arg	Ala	Arg	Leu	Glu	Gly	Glu	Leu	Lys	Gly	Leu	Gln	Glu
		35				40					45				
Gln	Ile	Ala	Glu	Thr	Lys	Ala	Arg	Leu	Ile	Thr	Gln	Gln	His	Asp	Arg
	50				55					60					
Ala	Gln	Glu	Gln	Ser	Asp	His	Ala	Leu	Met	Leu	Arg	Glu	Leu	Gln	Lys
65				70					75					80	
Leu	Leu	Gln	Glu	Glu	Arg	Thr	Gln	Arg	Gln	Asp	Leu	Glu	Leu	Arg	Leu
			85					90					95		
Glu	Glu	Thr	Arg	Glu	Ala	Leu	Ala	Gly	Arg	Ala	Tyr	Ala	Ala	Glu	Gln
		100						105					110		
Met	Glu	Gly	Phe	Glu	Leu	Gln	Thr	Lys	Gln	Leu	Thr	Arg	Glu	Val	Glu
		115				120					125				
Glu	Leu	Lys	Ser	Glu	Leu	Gln	Ala	Ile	Arg	Asp	Glu	Lys	Asn	Gln	Pro
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<210> 6127  
 <211> 1900



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6127

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<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

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		20						25					30		
Ala	Ser	Leu	Ala	Asp	Arg	Ala	Ser	Arg	Ala	Arg	Asp	Ser	Asn	Met	Val
		35					40					45			
Arg	Ala	Ala	Ala	Glu	Leu	Ala	Leu	Ser	Cys	Leu	Pro	His	Ala	His	Ala
	50					55				60					
Leu	Asn	Pro	Asn	Glu	Ile	Gln	Arg	Ala	Leu	Val	Gln	Cys	Lys	Glu	Gln
65				70					75					80	
Asp	Asn	Leu	Met	Leu	Glu	Lys	Ala	Cys	Met	Ala	Val	Glu	Glu	Ala	Ala
			85						90					95	
Lys	Gly	Gly	Gly	Val	Tyr	Pro	Glu	Val	Leu	Phe	Glu	Val	Ala	His	Gln
		100						105					110		
Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser	Thr	Ala	Arg
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Glu	Gly	Ala	Thr	Ser	Cys	Ser	Ala	Ser	Gly	Ile	Arg	Ala	Gly	Gly	Glu
	130					135				140					
Ala	Gly	Arg	Gly	Met	Pro	Glu	Gly	Arg	Gly	Gly	Pro	Gly	Thr	Glu	Pro
145					150					155					160
Val	Thr	Val	Ala	Ala	Ala	Ala	Val	Thr	Ala	Ala	Ala	Thr	Val	Val	Pro
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Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly	Leu	Gly	His
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Gly	His	Ser	Pro	Gly	Leu	His	Pro	Tyr	Thr	Ala	Leu	Gln	Pro	His	Leu
		195					200					205			
Pro	Cys	Ser	Pro	Gln	Tyr	Leu	Thr	His	Pro	Ala	His	Pro	Ala	His	Pro
	210					215					220				
Met	Pro	His	Met	Pro	Arg	Pro	Ala	Val	Phe	Pro	Val	Pro	Ser	Ser	Ala
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Tyr	Pro	Gln	Gly	Val	His	Pro	Ala	Phe	Leu	Gly	Ala	Gln	Tyr	Pro	Tyr
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Leu Pro Leu Pro Thr Ser Val Ala Cys Glu Leu Trp Gly Gln Gly Thr		
290	295	300
Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala		
305	310	315
Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly		
325	330	335
Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His		
340	345	350
Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu		
355	360	365
Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser		
370	375	380
Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala		
385	390	395
Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala		
405	410	415
Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr		
420	425	430
Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro		
435	440	445
Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr		
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Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe		
465	470	475
Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met		
485	490	495
Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys		
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Gln Thr Lys Glu Leu Trp Gln Arg Val Ser Leu Glu Met Ala Thr Phe		
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&lt;210&gt; 6129

&lt;211&gt; 2012

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6129

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<210> 6130

<211> 364

<212> PRT

<213> Homo sapiens

<400> 6130

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Gly Pro Arg Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu
      35           40           45
Thr Leu Lys Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val
      50           55           60
Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala
      65           70           75           80
Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr
      85           90           95
Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile
      100          105          110
Ile Phe Leu Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu
      115          120          125
Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly
      130          135          140
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met
      145          150          155          160
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp
      165          170          175
Leu Ile Pro Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile
      180          185          190
Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu
      195          200          205
Arg Val Ala Leu Lys Leu Asp Gln Thr Phe Pro Phe Ser Leu Met Arg
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Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro
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Tyr Val Gln Asn His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr
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Asn Ser Pro Gly Thr Val Tyr Ser Gly Ala Leu Gly Thr Pro Gly Ala
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355

360

&lt;210&gt; 6131

&lt;211&gt; 3526

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6131

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&lt;210&gt; 6132

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6132

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			20					25					30		
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&lt;210&gt; 6133

&lt;211&gt; 4156

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6133



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<212> PRT

<213> Homo sapiens

<400> 6134

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Lys	Asp	Gln	Phe	Ser	Cys	Gly	Asn	Ser	Val	Ala	Asp	Gln	Ala	Phe	Leu
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Asp Thr Ala Phe Gly His	Pro Gln Ala Tyr Gln Gly	Pro Ala Thr Gly
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Asp Asp Asp Asp Trp Asp	Glu Asp Trp Asp Gly	Pro Lys Ser Ser
165	170	175
Tyr Phe Lys Asp Ser Glu	Ser Ala Asp Ala Gly Gly	Ala Gln Arg Gly
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195	200	205
Pro Gly Phe Ala Lys Pro	Gly Thr Glu Gln Tyr	Leu Leu Ala Lys Gln
210	215	220
Leu Ala Lys Pro Lys Glu	Lys Ile Pro Ile Ile	Val Gly Asp Tyr Gly
225	230	235
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245	250	255
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275	280	285
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Lys Glu Tyr Gln Lys Ile	Gly Lys Ala Leu Gln	Ser Leu Ala Thr Val
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450	455	460
Thr Glu Ala Gly Lys Thr	Tyr Glu Glu Ile Ala	Ser Leu Val Ala Glu
465	470	475
Gln Pro Lys Lys Asp Leu	His Phe Leu Met Glu	Cys Asn His Glu Tyr
485	490	495
Lys Gly Phe Leu Gly Cys	Phe Pro Asp Ile Ile	Gly Thr His Lys Gly
500	505	510
Ala Ile Glu Lys Val Lys	Glu Ser Asp Lys Leu	Val Ala Thr Ser Lys
515	520	525
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<213> Homo sapiens
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5316



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&lt;210&gt; 6138

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6138

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Gly	Val	Pro	Asn	Ser	Ala	Pro	Phe	Lys	Glu	Ala	Leu	Leu	Arg	Glu	Ala
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Asp	Arg	Gln	Lys	Glu	Leu	Glu	Lys	Lys	Arg	Lys	Leu	Glu	Thr	Asn	Pro
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Leu Ala Asn Ser Ile Leu Phe Gln Ser Ser Gly Leu Thr Asn Gly Ile		
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Ile Glu Glu Lys Asp Ile His Glu Glu Leu Pro Lys Arg Lys Glu Arg		
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Lys Gln Glu Glu Arg Glu Asp Asp Lys Asp Ser Asp Gln Glu Thr Val		
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Asp Glu Glu Val Asp Glu Asn Ser Ser Gly Met Phe Ala Ala Glu Glu		
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Thr Gly Glu Ala Leu Ser Glu Glu Thr Thr Ala Gly Glu Gln Ser Thr		
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Arg Ser Phe Ile Leu Asp Lys Ile Ile Glu Glu Asp Asp Ala Tyr Asp		
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Phe Ser Thr Asp Tyr Val		
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&lt;210&gt; 6139

&lt;211&gt; 2249

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6139

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<211> 381

<212> PRT

<213> Homo sapiens

<400> 6140

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	260	265
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	275	280
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	325	330
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&lt;210&gt; 6141

&lt;211&gt; 5651

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6141

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<400> 6142

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His Gly Leu Gln Gln Pro Gln Pro Pro Ala Leu Arg Gln Gln Glu Glu
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      165          170          175
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Gly Ser Gly Gly Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe
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Leu Asn Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr
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&lt;210&gt; 6143

&lt;211&gt; 1137

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6143

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<210> 6144

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6144

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			20					25					30	Asn
Ser	Gly	Ser	Arg	Gln	Ala	Trp	Val	His	Pro	Pro	Ala	Gln	Pro	Arg
			35				40					45		Thr
Ala	Gly	Pro	Glu	Leu	Gly	Gly	Gln	Gly	Ile	Pro	Ser	Pro	Gly	Cys
			50			55					60			Ala
Cys	Gln	Arg	Gly	Glu	Ala	Gly	Gly	Gly	Gly	Asn	Ala	Val	Leu	Pro
					70					75				80
Glu	Ser	Val	Leu	Arg	Ala	Ser	Ala	Val	Gly	Arg	Gly	Ala	Glu	Gly
				85					90				95	Pro
Gly	Ala	Leu	Thr	Arg	Ser	Gly	Ser	Gly	Ala	Ala	Ser	Ala	Leu	Val
			100					105					110	Arg
Pro	Gly	Glu	Lys	Gly	Cys	Trp	Cys	Arg	Thr	Ala	Ser	Gly	Ala	Gly
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Ser	Gly	Asp	Arg	Gly	Pro	Glu	Val	Gln	Val	Pro	Gly	Gly		
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<210> 6145

<211> 766

<212> DNA

<213> Homo sapiens

<400> 6145

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 300



taaggatgga ctggatatta ccatcatcca ccatcctggc taccagatgg aaccttctct  
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 766

&lt;210&gt; 6146

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6146

Xaa	Lys	Gly	Ser	Ala	Ser	Ser	Pro	Gly	Val	Gln	Leu	Val	Ala	Ser	Gly
1				5					10					15	
Ser	Pro	Val	Pro	Arg	Ala	Met	Ser	Ser	Gln	Gln	Gln	Gln	Arg	Gln	Ala
			20					25					30		
Ala	Val	Pro	Thr	Pro	Glu	Ala	Gln	Gln	Gln	Gln	Val	Lys	Gln	Pro	Cys
		35				40						45			
Gln	Pro	Pro	Pro	Val	Lys	Cys	Gln	Glu	Thr	Cys	Ala	Pro	Lys	Thr	Lys
	50				55					60					
Asp	Pro	Cys	Ala	Pro	Gln	Val	Lys	Lys	Gln	Cys	Pro	Pro	Lys	Asp	Thr
65					70				75					80	
Ile	Ile	Pro	Ala	Gln	Gln	Lys	Cys	Pro	Ser	Ala	Gln	Gln	Ala	Ser	Lys
				85					90					95	
Ser	Lys	Gln	Lys												
															100

&lt;210&gt; 6147

&lt;211&gt; 1852

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6147

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 300



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1852

&lt;210&gt; 6148



&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6148

```

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Asp Ile Gln Asn Leu Asn Glu Glu Arg Ile Leu Ala Leu Gln Leu Cys
           20           25           30
Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
 35           40           45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Val Ala Leu
 50           55           60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
65           70           75           80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
           85           90           95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
           100          105          110
Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
 115          120          125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
 130          135          140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
145          150          155          160
Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
           165          170          175
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
           180          185          190
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
 195          200          205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
 210          215          220
Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
225          230          235          240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
           245          250          255
Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
           260          265          270
Asn Phe Cys Gly Lys Ser Ile Ser Tyr Ser Cys Ser Ala Val Pro His
 275          280          285
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
 290          295          300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
305          310          315          320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
           325          330          335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
           340          345          350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
           355          360          365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
 370          375          380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

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[illegible]



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&lt;210&gt; 6150

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6150

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			20					25					30		
Lys	Val	Ser	Leu	Thr	Lys	Thr	Pro	Lys	Leu	Glu	Arg	Gly	Asp	Gly	Gly
			35				40					45			
Lys	Glu	Val	Arg	Glu	Arg	Ala	Ser	Lys	Arg	Lys	Leu	Pro	Phe	Thr	Ala
			50			55				60					
Gly	Ala	Asn	Gly	Glu	Gln	Lys	Asp	Ser	Asp	Thr	Glu	Lys	Gln	Gly	Pro
65					70				75					80	
Glu	Arg	Lys	Arg	Ile	Lys	Lys	Glu	Pro	Val	Thr	Arg	Lys	Ala	Gly	Leu
			85					90						95	
Leu	Phe	Gly	Met	Gly	Leu	Ser	Gly	Ile	Arg	Ala	Gly	Tyr	Pro	Leu	Ser
			100					105					110		
Glu	Arg	Gln	Gln	Val	Ala	Leu	Leu	Met	Gln	Met	Thr	Ala	Glu	Glu	Ser
			115				120					125			
Ala	Asn	Ser	Pro	Val	Asp	Thr	Thr	Pro	Lys	His	Pro	Ser	Gln	Ser	Thr
			130			135					140				
Val	Cys	Gln	Lys	Gly	Thr	Pro	Asn	Ser	Ala	Ser	Lys	Thr	Lys	Asp	Lys
145					150				155					160	
Leu	Asn	Lys	Arg	Asn	Glu	Arg	Gly	Glu	Thr	Arg	Leu	His	Arg	Ala	Ala
			165				170						175		
Ile	Arg	Gly	Asp	Ala	Arg	Arg	Ile	Lys	Glu	Leu	Ile	Ser	Glu	Gly	Ala
			180				185					190			
Asp	Val	Asn	Val	Lys	Asp	Phe	Ala	Gly	Trp	Thr	Ala	Leu	His	Glu	Ala



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Cys Asn Arg Gly Tyr Tyr Asp Val Ala Lys Gln Leu Leu Ala Ala Gly		
210	215	220
Ala Glu Val Asn Thr Lys Gly Leu Asp Asp Asp Thr Pro Leu His Asp		
225	230	235
Ala Ala Asn Asn Gly His Tyr Lys Val Val Lys Leu Leu Leu Arg Tyr		
245	250	255
Gly Gly Asn Pro Gln Gln Ser Asn Arg Lys Gly Glu Thr Pro Leu Lys		
260	265	270
Val Ala Asn Ser Pro Thr Met Val Asn Leu Leu Leu Gly Lys Gly Thr		
275	280	285
Tyr Thr Ser Ser Glu Glu Ser Ser Thr Glu Ser Ser Glu Glu Glu Asp		
290	295	300
Ala Pro Ser Phe Ala Pro Ser Ser Ser Val Asp Gly Asn Asn Thr Asp		
305	310	315
Ser Glu Phe Glu Lys Gly Leu Lys His Lys Ala Lys Asn Pro Glu Pro		
325	330	335
Gln Lys Ala Thr Ala Pro Val Lys Asp Glu Tyr Glu Phe Asp Glu Asp		
340	345	350
Asp Glu Gln Asp Arg Val Pro Pro Val Asp Asp Lys His Leu Leu Lys		
355	360	365
Lys Asp Tyr Arg Lys Glu Thr Lys Ser Asn Ser Phe Ile Ser Ile Pro		
370	375	380
Lys Met Glu Val Lys Ser Tyr Thr Lys Asn Asn Thr Ile Ala Pro Lys		
385	390	395
Lys Ala Ser His Arg Ile Leu Ser Asp Thr Ser Asp Glu Glu Asp Ala		
405	410	415
Ser Val Thr Val Gly Thr Gly Glu Lys Leu Arg Leu Ser Ala His Thr		
420	425	430
Ile Leu Pro Gly Ser Lys Thr Arg Glu Pro Ser Asn Ala Lys Gln Gln		
435	440	445
Lys Glu Lys Asn Lys Val Lys Lys Lys Arg Lys Lys Glu Thr Lys Gly		
450	455	460
Arg Glu Val Arg Phe Gly Lys Arg Ser Xaa Ser Ser Ala Pro Arg Ser		
465	470	475
Arg Arg Ala Ser Pro Gln Arg Val Gly Arg Met Thr Gly Thr Leu Trp		
485	490	495
Gly Ala Leu Ala Ala Ser Arg Gly Pro Arg Trp Cys		
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&lt;210&gt; 6151

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6151

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240

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<210> 6152

<211> 130

<212> PRT

<213> Homo sapiens

<400> 6152

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Gln	Pro	Cys	Gly	Ser	Pro	Arg	Arg	Thr	Glu	Glu	Thr	Gly	Glu	Thr	Trp
			20					25					30		
Glu	Arg	Val	Ala	Phe	Ser	Leu	Phe	Thr	His	Thr	Cys	Thr	Gln	Pro	Leu
		35					40					45			
Ala	Gly	Thr	Val	Asp	Thr	His	Leu	Pro	Ser	Leu	Leu	Leu	Pro	Val	Ile
	50					55					60				
Leu	His	Pro	Leu	Gly	Ala	Ala	Ser	Ala	Gly	Arg	Ala	Leu	Glu	Pro	Lys
65					70					75					80
Ala	Asp	Pro	His	Thr	Cys	Pro	Tyr	Gly	Arg	Lys	Glu	Ser	Arg	Gly	Glu
			85						90					95	
Lys	Val	Arg	Arg	Gly	Arg	Ala	Lys	Ser	Asn	Ser	Gly	Pro	Asn	Val	Pro
			100						105				110		
Gly	Pro	Pro	Ala	Ala	Pro	Gln	Ser	Leu	Lys	Ser	Gly	Ser	Pro	Ser	Thr
			115					120					125		
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<210> 6153

<211> 1810

<212> DNA

<213> Homo sapiens

<400> 6153

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&lt;210&gt; 6154

&lt;211&gt; 388

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6154

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Ser Gly Xaa Met Asp Ser Cys Leu Met Val Trp His Met Lys Leu Gln
      20           25           30
Ser Arg Ala Tyr Arg Phe Thr Gly His Lys Asp Ala Val Thr Cys Val
      35           40           45
Asn Phe Ser Pro Ser Gly His Leu Leu Ala Ser Gly Ser Arg Asp Lys
      50           55           60
Thr Val Arg Ile Trp Val Pro Asn Val Lys Gly Glu Ser Thr Val Phe
      65           70           75           80
Arg Ala His Thr Ala Thr Val Arg Ser Val His Phe Cys Ser Asp Gly
      85           90           95
Gln Ser Phe Val Thr Ala Ser Asp Asp Lys Thr Val Lys Val Trp Ala
      100          105          110
Thr His Arg Gln Lys Phe Leu Phe Ser Leu Ser Gln His Ile Asn Trp
      115          120          125
Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Ala
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Ser Asp Asp Lys Thr Val Lys Leu Trp Asp Lys Ser Ser Arg Glu Cys
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Val His Ser Tyr Cys Glu His Gly Gly Phe Val Thr Tyr Val Asp Phe
      165          170          175
His Pro Ser Gly Thr Cys Ile Ala Ala Ala Gly Met Asp Asn Thr Val
      180          185          190
Lys Val Trp Asp Val Arg Thr His Arg Leu Leu Gln His Tyr Gln Leu
      195          200          205
His Ser Ala Ala Val Asn Gly Leu Ser Phe His Pro Ser Gly Asn Tyr
      210          215          220
Leu Ile Thr Ala Ser Ser Asp Ser Thr Leu Lys Ile Leu Asp Leu Met
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Glu Gly Arg Leu Leu Tyr Thr Leu His Gly His Gln Gly Pro Ala Thr
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Thr Val Ala Phe Ser Arg Thr Gly Glu Tyr Phe Ala Ser Gly Gly Ser
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Asp Glu Gln Val Met Val Trp Lys Ser Asn Phe Asp Ile Val Asp His
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Gly Glu Val Thr Lys Val Pro Arg Pro Pro Ala Thr Leu Ala Ser Ser
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Met Gly Asn Leu Pro Glu Val Asp Phe Pro Val Pro Pro Gly Arg Gly
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Trp Ser Val Glu Ser Val Gln Ser Gln Pro Gln Glu Pro Val Ser Val
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Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp
      340          345          350
Val Leu Thr Gln Thr Val Ser Ile Leu Glu Gln Arg Leu Thr Leu Thr
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Glu Asp Lys Leu Lys Gln Cys Leu Glu Asn Gln Gln Leu Ile Met Gln

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<210> 6155  
<211> 995  
<212> DNA  
<213> Homo sapiens

<400> 6155  
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<210> 6156  
<211> 164  
<212> PRT  
<213> Homo sapiens

<400> 6156  
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Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Asn Ala Leu
      65      70      75      80
Leu Gly Asn Glu Leu Glu Pro Leu Ala Glu Asp Ile Leu His Gln Ser
      85      90      95
Pro Asn Met Asn Ala Val Ile Ser Leu Gln Lys Ile Ile Glu Ile Gln
      100      105      110
Lys Leu Leu Val Ser Leu Trp Lys Arg Ser Gln Pro Cys Glu Val Pro
      115      120      125
Ser Pro Pro Leu Ile Phe Pro Val Cys Asp Ile Ile Val Tyr Pro Pro
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Thr Pro Val Pro Ser Asp Met Ser Cys Leu Leu Pro Gly Trp His Arg
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Phe Asn Gly Thr

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&lt;210&gt; 6157

&lt;211&gt; 2135

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6157

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840

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&lt;210&gt; 6158

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6158

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 Ala Ala Ser Gly Ile Tyr Phe Tyr Ser Asn Lys Tyr Leu Asp Pro Asn



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Ala	Val	Leu	His	Asp	Gly	Arg	Thr	Val	Ala	Val	Lys	Val	Gln	His	Pro	
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Lys	Val	Arg	Ala	Gln	Ser	Ser	Lys	Asp	Ile	Leu	Leu	Met	Glu	Val	Leu	
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				325					330					335		
Glu	Ile	Arg	Asn	Asn	Ala	Ala	Asn	Tyr	Leu	Pro	Gln	Ile	Ser	His	Leu	
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450

455

&lt;210&gt; 6159

&lt;211&gt; 4310

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6159

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&lt;210&gt; 6160

&lt;211&gt; 551

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6160

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Cys	Ser	Arg	Val	Gly	Lys	Gln	Ser	Phe	Ile	Ile	Thr	Leu	Gly	Cys	Asn	
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Ser	Val	Leu	Ile	Gln	Phe	Ala	Thr	Pro	Asn	Asp	Phe	Cys	Ser	Phe	Tyr	
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Asn	Ile	Leu	Lys	Thr	Cys	Arg	Gly	His	Thr	Leu	Glu	Arg	Ser	Val	Phe	
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Ser	Glu	Arg	Thr	Glu	Ser	Ser	Ala	Val	Gln	Tyr	Phe	Gln	Phe	Tyr		
			85					90					95			
Gly	Tyr	Leu	Ser	Gln	Gln	Asn	Met	Met	Gln	Asp	Tyr	Val	Arg	Thr		
			100				105					110				
Gly	Thr	Tyr	Gln	Arg	Ala	Ile	Leu	Gln	Asn	His	Thr	Asp	Phe	Lys	Asp	
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Lys	Ile	Val	Leu	Asp	Val	Gly	Cys	Gly	Ser	Gly	Ile	Leu	Ser	Phe	Phe	
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Ala	Ala	Gln	Ala	Gly	Ala	Arg	Lys	Ile	Tyr	Ala	Val	Glu	Ala	Ser	Thr	
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Thr	Asp	Glu	Gln	Leu	Tyr	Met	Glu	Gln	Phe	Thr	Lys	Ala	Asn	Phe	Trp	
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Tyr	Gln	Pro	Ser	Phe	His	Gly	Val	Asp	Leu	Ser	Ala	Leu	Arg	Gly	Ala	
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Arg	Ile	Leu	Met	Ala	Lys	Ser	Val	Lys	Tyr	Thr	Val	Asn	Phe	Leu	Glu	
	290					295					300					
Ala	Lys	Glu	Gly	Asp	Leu	His	Arg	Ile	Glu	Ile	Pro	Phe	Lys	Phe	His	
305					310					315					320	
Met	Leu	His	Ser	Gly	Leu	Val	His	Gly	Leu	Ala	Phe	Trp	Phe	Asp	Val	
			325						330					335		
Ala	Phe	Ile	Gly	Ser	Ile	Met	Thr	Val	Trp	Leu	Ser	Thr	Ala	Pro	Thr	
			340					345					350			
Glu	Pro	Leu	Thr	His	Trp	Tyr	Gln	Val	Arg	Cys	Leu	Phe	Gln	Ser	Pro	
		355		</												



```

      450              455              460
Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro
465              470              475              480
Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser
      485              490              495
Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser
      500              505              510
Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr
      515              520              525
Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr
      530              535              540
Asn Thr Met His Tyr Gly Ser
545              550

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<210> 6161

<211> 1489

<212> DNA

<213> Homo sapiens

<400> 6161

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120
gtggctcacg cctgcaatcc anacaccttg ggaggccgaa gcaaggagat cacctgagcc
180
caagagtttg agaccacca catagcaaga ccccatctct attttttga aaaaaaaaaa
240
aaaagcagca accagcagga tgggtggaaa aaagttgctg aaggtctctc aagatcctct
300
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360
cccatgggg atgaaggatg gttgggggtca gggtcctaga gggagggtg gaaggaggga
420
aggagatggc cagagaagga tgtaggacac agagggtgccg ccgtggatca ccaagagggt
480
caggactggc cagaggaagg agaggagatc aaggcaagca tgaggcactt gggagatgca
540
tctgtgcctg cacacagctg aaatccccag gaaataagac gggagcaggg tgggtttctg
600
cagccgaggt gagaccaaag tgccagctca ctgccaccct cagtaaagac taacttgccc
660
ttccccaaa ctccccctcc agaagtagct tgctctctc tgcttgccac acatcggggg
720
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780
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840
cctgtgctgc gggcttttca cacacagcct cttagacgct tagcctgtga ggcgggtgct
900
gttgtccttc cttcccattt tgcaactgag caaacagcct gaaagagaca aaaaccaggt
960
agttagcatg accccaaagc cactccctgg tctacgctgt tctgcagcct gagcctgggg
1020

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tggccagggtg gggttgtgca gtgagggggg gaaggagaat agcccccaa aatgctgccg  
 1080  
 gaatggtaaa gggcctggac tgcaaagcta gtgacttgag ctttatTTtg tggcactgga  
 1140  
 ggTTTTccca gtcattgtaa tgatacaatc agatttgCGt tgtcttcaag ttaccatggT  
 1200  
 aaccgtactt ccaccaccca agagtggatt ggagaaggca aaactagggc agagaagcca  
 1260  
 gggagtgttg agaaggTctg aaccagaca gtgggcagct gggccccaag acggatgggg  
 1320  
 gactccagaa gcgtggagct ggcagagaga aacctgcccG gggcatcaga gaaaaggggc  
 1380  
 actgtgcagg aacagagtag atgaggTggg gaacctttgg gtaagaagag ctgaatcagg  
 1440  
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 1489

<210> 6162

<211> 58

<212> PRT

<213> Homo sapiens

<400> 6162

Gly	Cys	Met	Ile	Phe	Ser	Arg	Phe	Ser	Thr	Glu	Gly	Ser	Glu	Leu	Trp
1				5					10					15	
Glu	Arg	Lys	Glu	Asp	Gly	Gly	Asn	Gly	Lys	Lys	Arg	Ser	Thr	Leu	Leu
			20					25					30		
Arg	Lys	Gly	Thr	Glu	Pro	Gly	Val	Val	Ala	His	Ala	Cys	Asn	Pro	Xaa
			35				40					45			
Thr	Leu	Gly	Gly	Arg	Ser	Lys	Glu	Ile	Thr						
	50						55								

<210> 6163

<211> 713

<212> DNA

<213> Homo sapiens

<400> 6163

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 gagatgagtc cagctgcggT cagagccatg ggatgtgggt cactgtgacc cagtgggtca  
 120  
 caggtgctga gcaaggaagg gctgggaggc tcaagcaaaa tctacaagaa aaatctaaag  
 180  
 gggccagacc tctgccagga aaagcaggcc tggctctgct gaaaccccaa tcacgctctg  
 240  
 atggataccg gtacctgggc aaggataccg tggatggact tgattcttct ctccTgaaat  
 300  
 gtacgagaag gtgcatgcgg ggatttcggc tgccTgaaaa gcaaccctct aaaacccgag  
 360  
 tgtcattttt agaatcaaaa aggaaggaag gcagtggctg gctgcactgg tcagtaacga  
 420  
 gatctggagc ttttcgcctt aaggTcactg tttaaaactc tgccctgggt cagttgtaac  
 480



agaaagtcac aactccctca caggcatcag ggtgcaactt tgaatgccaa gaggggctgt  
 540  
 gtctgttggt taccacgcgg cgagctcccg ggacacctcc tgacacctcc tgacagtgtc  
 600  
 tctttctcta ggagtctcct ctcttccac ccaccatggc ggcttggcct ggaggggagg  
 660  
 cattggggac tgagtccttc cccgacaggg agtctctctc ccccttggcg cgc  
 713

<210> 6164

<211> 120

<212> PRT

<213> Homo sapiens

<400> 6164

Met	Trp	Val	Thr	Val	Thr	Gln	Trp	Val	Thr	Gly	Ala	Glu	Gln	Gly	Arg
1				5				10						15	
Ala	Gly	Arg	Leu	Lys	Gln	Asn	Leu	Gln	Glu	Lys	Ser	Lys	Gly	Ala	Gln
			20				25						30		
Pro	Leu	Pro	Gly	Lys	Ala	Gly	Leu	Ala	Leu	Leu	Lys	Pro	Gln	Ser	Arg
		35					40					45			
Ser	Asp	Gly	Tyr	Arg	Tyr	Leu	Gly	Lys	Asp	Thr	Val	Asp	Gly	Leu	Asp
	50					55					60				
Ser	Ser	Leu	Leu	Lys	Cys	Thr	Arg	Arg	Cys	Met	Arg	Gly	Phe	Arg	Leu
65					70				75					80	
Pro	Glu	Lys	Gln	Pro	Ser	Lys	Thr	Arg	Val	Ser	Phe	Leu	Glu	Ser	Lys
			85						90					95	
Arg	Lys	Glu	Gly	Ser	Gly	Trp	Leu	His	Trp	Ser	Val	Thr	Arg	Ser	Gly
			100				105						110		
Ala	Phe	Arg	Leu	Lys	Val	Thr	Val								
			115				120								

<210> 6165

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 6165

cccagccgga tcgggcggcg aaggccggcg cggcgagcag caaccatgtc ggtgttcggg  
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 aagctgttcg gggctggagg gggtaaggcc ggcaaggcg gcccgacccc ccaggaggcc  
 120  
 atccagcggc tcggggacac ggaagagatg ttaagcaaga aacaggagtt cctggagaag  
 180  
 aaaatcgagc aggagctgac ggccgccaag aagcacggca ccaaaaacaa gcgcgcggcc  
 240  
 ctccaggcac tgaagcgtaa gaagaggtat gagaagcagc tggcgcagat cgacggcaca  
 300  
 ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaacaccaa caccgaggtg  
 360  
 ctcaagaaca tgggctatgc cgccaaggcc atgaaggcg cccatgacaa catggacatc  
 420  
 gataaagttg atgagttaat gcaggacatt gctgaccagc aagaacttgc agaggagatt  
 480



tcaacagcaa tttcgaaacc tgtagggttt ggagaagagt ttgacgagga tgagctcatg  
 540  
 gcggaattag aagaactaga acaggaggaa ctagacaaga atttgctgga aatcagtgga  
 600  
 cccgaaacag tccctctacc aaatgttccc tctatagccc taccatcaaa acccgccaag  
 660  
 aagaaagaag aggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa  
 720  
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 780  
 gtgcgtgtgt ggggcaggca ggatgtggtg caggcagggtt ccatcgcttt cgactctcac  
 840  
 tccaaagcag tagggccgag ttgctgctca ctctctgcat agcatggtct gcacctggga  
 900  
 gttggccggg gggagggggg cgagcgggct ggcacgtgcc tgctgtttat aatgttgaat  
 960  
 ttctgtaaaa taaactgtat ttgcaaatcc aaaaaaaaaa aaaa  
 1004

<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

Pro	Ser	Arg	Ile	Gly	Arg	Arg	Arg	Pro	Ala	Arg	Arg	Ala	Ala	Thr	Met
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Ser	Val	Phe	Gly	Lys	Leu	Phe	Gly	Ala	Gly	Gly	Gly	Lys	Ala	Gly	Lys
			20					25					30		
Gly	Gly	Pro	Thr	Pro	Gln	Glu	Ala	Ile	Gln	Arg	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Glu	Met	Leu	Ser	Lys	Lys	Gln	Glu	Phe	Leu	Glu	Lys	Lys	Ile	Glu	Gln
	50					55					60				
Glu	Leu	Thr	Ala	Ala	Lys	Lys	His	Gly	Thr	Lys	Asn	Lys	Arg	Ala	Ala
	65				70					75				80	
Leu	Gln	Ala	Leu	Lys	Arg	Lys	Lys	Arg	Tyr	Glu	Lys	Gln	Leu	Ala	Gln
				85				90					95		
Ile	Asp	Gly	Thr	Leu	Ser	Thr	Ile	Glu	Phe	Gln	Arg	Glu	Ala	Leu	Glu
			100					105					110		
Asn	Ala	Asn	Thr	Asn	Thr	Glu	Val	Leu	Lys	Asn	Met	Gly	Tyr	Ala	Ala
		115					120						125		
Lys	Ala	Met	Lys	Ala	Ala	His	Asp	Asn	Met	Asp	Ile	Asp	Lys	Val	Asp
	130					135					140				
Glu	Leu	Met	Gln	Asp	Ile	Ala	Asp	Gln	Gln	Glu	Leu	Ala	Glu	Glu	Ile
	145				150					155				160	
Ser	Thr	Ala	Ile	Ser	Lys	Pro	Val	Gly	Phe	Gly	Glu	Glu	Phe	Asp	Glu
				165				170					175		
Asp	Glu	Leu	Met	Ala	Glu	Leu	Glu	Glu	Leu	Glu	Gln	Glu	Glu	Leu	Asp
			180					185					190		
Lys	Asn	Leu	Leu	Glu	Ile	Ser	Gly	Pro	Glu	Thr	Val	Pro	Leu	Pro	Asn
		195					200						205		
Val	Pro	Ser	Ile	Ala	Leu	Pro	Ser	Lys	Pro	Ala	Lys	Lys	Lys	Glu	Glu
		210				215							220		
Glu	Asp	Asp	Asp	Met	Lys	Glu	Leu	Glu	Asn	Trp	Ala	Gly	Ser	Met	



225

230

235

&lt;210&gt; 6167

&lt;211&gt; 1220

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6167

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60  
tggaaactcc aacagttaag agattctcat gtattccatg aaataaaaag caaagaaaaa  
120  
tcaaaacttgt cttaatgaga tggaagtgtt ggatcaaaca ctgattgagc tgttctatgt  
180  
cctccacttc cccagtgcct tctctcctcc cgggtctgcg cggacgcggc ctccttacct  
240  
catttgctct cgccctccc cgtccctcta cgcgttttgg tcctgtttg gtgctttctg  
300  
tttgagcta cggcagtgag tatgtatgtg acggaccccg agtcaccgcg ggctgggac  
360  
ccctgcctac cctcgtctc gccagccgag ctgtggaact agcgcgtgcc ccctgccga  
420  
cctcggcgtc tccggtccgc cctcacttg tgggtggggcg cagctcctgg tccctcagct  
480  
gcgcgccgcc ccacgcggcc gggctgcggg tctagggggc cgcctctcc ctggctttcc  
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660  
cgcgagggtc cgggcgcgcc gagagagagt ccagtctttg aggaccgagt agtcctgggc  
720  
cacctccgc ctctgctgtc agaagcagca gctgccgcg tggaatccaa aatttcggga  
780  
gctgtgacct tttcctcatg taaaacgagt agtcttggac gatctgggca taggaaccaa  
840  
tcagaaacaa tcgcttcagc aatcaagacc attgttcac atggaggaa ccatggatac  
900  
ctctgagcct ctatctgcat taccattcac tgggcagcag tcttttgagc caagtggcaa  
960  
atttgacag tatccatcga tgcagatgaa ccacatccag gcactgggga agtggaggac  
1020  
atagaacagc tcaatcagtg tttgatccaa cacttccatc tcattaagac aagtttgatt  
1080  
tttctttgct ttttatttca tggaatacat gagaatctct taactgttgg agtttccaag  
1140  
gaggcatacc tcatgacttc agttaatgga aagaacaaaa ctaaaatgct gtatggccaa  
1200  
agccacaaag ggaaggatcc  
1220

&lt;210&gt; 6168

&lt;211&gt; 90

&lt;212&gt; PRT



<213> Homo sapiens

<400> 6168

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Ala Lys Trp Gln Ile Trp Thr Val Ser Ile Asp Ala Asp Glu Pro His
 1             5             10             15
Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu
             20             25             30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
             35             40             45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
             50             55             60
Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met
65             70             75             80
Leu Tyr Gly Gln Ser His Lys Gly Lys Asp
             85             90

```

<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

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tgagggttc gatcccttct ctgatttgct gtcagccatg aacggatgga tgtgatgcct
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120
cagtgacccc aggccttttta tggctgtgaa acacgttaaa atttcagggt aagacgtgac
180
cttttgaggt gactataact gaagattgct ttacagaagc ccaaaaagggt tttttgagtc
240
atgatgcaag aatctgggac tgagacaaaa agtaacgggt cagccatcca gaatgggtcg
300
ggcggcagca accacttact agagtgcggc ggtcttcggg aggggcgggc caacggagag
360
acgccggccg tggacatcgg ggcagctgac ctgcgccacg cccagcagca gcagcaacag
420
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480
tcaagccctt gggagttgga agtcctgcag gtcccttggt gggagcagtt gctgagacga
540
agatgagtgg acctgtgtgt cagcctaacc cttccccatt ttgaataaaa ttattctttg
600
gagaaatggt tcccactgct ttcattgcaa aataaaaatt aaacgaaaaa cagcttaagc
660
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720

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<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

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Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

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      1             5             10             15
Gln Asn Gly Ser Gly Gly Ser Asn His Leu Leu Glu Cys Gly Gly Leu
      20             25             30
Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala
      35             40             45
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Gln Trp His Leu Ile
      50             55             60
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile
      65             70             75             80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln
      85             90             95
Leu Leu Arg Arg Arg
      100

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&lt;210&gt; 6171

&lt;211&gt; 1130

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6171

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nncccgctag gagttcctag taaagtggcg ggagccgcag ctatggagcc gcaggaggag
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agagaaacgc aggttgctgc gtggttaaaa aaaatatttg gagatcatcc tattccacag
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tatgagggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacagggtc
180
cgggacaggg atgtctacct ggtaatagag gacttgaagc agaaagcaag tgaatacgag
240
tcagaagcca agtatcttca agaccttctc atggagagtg tgaatttttc ccccgccaat
300
ctctctagca ctggttccag gtatctgaat gctttggttg acagtgcggt ggcccttgaa
360
acaaaggata cctcgctagc tagttttatc cctgcagtga atgatttgac ctctgatctc
420
tttcgtacca aatccaaaag tgaagaaatc aagattgaac tggaaaaact tgaaaaaat
480
ttaactgcaa ctttagtatt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaagggc caaagttgat aatcgtcgtc agaacatgga ctttctaaaa
600
gcaaagtcag aggaattcag atttggaaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcatcagtc ttagtagcac tatcagagaa actggcaaga
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780
aatccgtctc ttgctcaagt gaaaattgaa gaagcaaagc gagaactaga tagcattgaa
840
gctgaactta caagaagagt agacatgatg gaactgtgac aaaagccaaa taaacatcct
900
tttccctaac aaagtaaatt gaataggact ttacagagtt ctttttcctc ttggcatttc
960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggt
1020

```



ttcttactgt gtgttgcat tttgtgccca aatacatagt tttcatatta aaaagccttt  
 1080  
 tctcttataaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1130

<210> 6172  
 <211> 292  
 <212> PRT  
 <213> Homo sapiens

<400> 6172  
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 20 25 30  
 Phe Gly Asp His Pro Ile Pro Gln Tyr Glu Val Asn Pro Arg Thr Thr  
 35 40 45  
 Glu Ile Leu His His Leu Ser Glu Arg Asn Arg Val Arg Asp Arg Asp  
 50 55 60  
 Val Tyr Leu Val Ile Glu Asp Leu Lys Gln Lys Ala Ser Glu Tyr Glu  
 65 70 75 80  
 Ser Glu Ala Lys Tyr Leu Gln Asp Leu Leu Met Glu Ser Val Asn Phe  
 85 90 95  
 Ser Pro Ala Asn Leu Ser Ser Thr Gly Ser Arg Tyr Leu Asn Ala Leu  
 100 105 110  
 Val Asp Ser Ala Val Ala Leu Glu Thr Lys Asp Thr Ser Leu Ala Ser  
 115 120 125  
 Phe Ile Pro Ala Val Asn Asp Leu Thr Ser Asp Leu Phe Arg Thr Lys  
 130 135 140  
 Ser Lys Ser Glu Glu Ile Lys Ile Glu Leu Glu Lys Leu Glu Lys Asn  
 145 150 155 160  
 Leu Thr Ala Thr Leu Val Leu Glu Lys Cys Leu Gln Glu Asp Val Lys  
 165 170 175  
 Lys Ala Glu Leu His Leu Ser Thr Glu Arg Ala Lys Val Asp Asn Arg  
 180 185 190  
 Arg Gln Asn Met Asp Phe Leu Lys Ala Lys Ser Glu Glu Phe Arg Phe  
 195 200 205  
 Gly Ile Lys Ala Ala Glu Glu Gln Leu Ser Ala Arg Gly Met Asp Ala  
 210 215 220  
 Ser Leu Ser His Gln Ser Leu Val Ala Leu Ser Glu Lys Leu Ala Arg  
 225 230 235 240  
 Leu Lys Gln Gln Thr Ile Pro Leu Lys Lys Lys Leu Glu Ser Tyr Leu  
 245 250 255  
 Asp Leu Met Pro Asn Pro Ser Leu Ala Gln Val Lys Ile Glu Glu Ala  
 260 265 270  
 Lys Arg Glu Leu Asp Ser Ile Glu Ala Glu Leu Thr Arg Arg Val Asp  
 275 280 285  
 Met Met Glu Leu  
 290

<210> 6173  
 <211> 1483  
 <212> DNA  
 <213> Homo sapiens



&lt;400&gt; 6173

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60  
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120  
caaggcctgt tgatgcagcc atgggctggt ctacagcttg cagagaactc cctcttgccc  
180  
aagggttttta tcaccaagca gggctatgcc ttgttggttt cagatcttca acagggtgtgg  
240  
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc  
300  
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360  
gacgctgctc accctagcga agctaccttc tcctgtgatt gtgtggcaga tgcactgatt  
420  
ctacgggtgc gaagtgcgct ctctggcctc cccttctatt ggaatttcca ctgcatgcta  
480  
gctagtcctt ccctgggtctc ccaacatttg attcgtcttc tgatgggcat gagtctggca  
540  
ttacagtgcc aagtgcaggga gctagcaacg ttacttcata tgaaagacct agagatccaa  
600  
gactaccagg agagtggggc tacgctgatt cgagatcgat tgaagacaga accatttgaa  
660  
gaaaattcct tcttgaaca atttatgata gagaaactgc cagaggcatg cagcattggg  
720  
gatggaaagc cctttgtcat gaatctgcag gatctgtata tggcagtcac cacacaagag  
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960  
ctgtcaaagg tcaagaggaa gaatccaagg ggtctcttca gttaatctgt tgtggcctca  
1020  
gctgctgagg atggacttgg agaatagctt ccaagcttca ccttgaaaga agcttacatg  
1080  
gcagcaatat ttctaaaata gtgatacagt cagaggcctc ctgtaagggc gagagaactg  
1140  
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1200  
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1260  
tggactttag gtatataggg caagtcagca agaaagcacc acacactcag gaagccttgt  
1320  
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1380  
ctcttttgca tgggaataaaa agcactcaca gtccctgctt ttgggattaa aaaacaaaaa  
1440  
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1483

&lt;210&gt; 6174



&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6174

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Met Glu Glu Leu Glu Gln Gly Leu Leu Met Gln Pro Trp Ala Trp Leu
 1           5           10           15
Gln Leu Ala Glu Asn Ser Leu Leu Ala Lys Val Phe Ile Thr Lys Gln
      20           25           30
Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln
      35           40           45
Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg
      50           55           60
Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu
      65           70           75           80
Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser
      85           90           95
Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu
      100          105          110
Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro
      115          120          125
Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu
      130          135          140
Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys
      145          150          155          160
Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg
      165          170          175
Asp Arg Leu Lys Thr Glu Pro Phe Glu Glu Asn Ser Phe Leu Glu Gln
      180          185          190
Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys
      195          200          205
Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln
      210          215          220
Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr
      225          230          235          240
Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln
      245          250          255
Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys
      260          265          270
Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys
      275          280          285
Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser
      290          295

```

&lt;210&gt; 6175

&lt;211&gt; 349

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6175

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acgcgtttgc cgaggatgc gccgcttcg tcctctgcag ttaagaagct gggcgctcg
60
aggactggga tttcaaatat gcgtgcatta gagaatgact ttttcaattc tcccccaaga
120

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aaaactgttc agtttggtgg aactgtgaca gaagtcttgc tgaagtacaa aaagggtgaa  
 180  
 acaaatgact ttgagttggt gaagaaccag ctgttagatc cagacataaa gagattgcct  
 240  
 tggttgaata gaagtcaaac agtagtgga gagtatttgg cttttcttgg taatcttgta  
 300  
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<210> 6176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6176

Met	Arg	Ala	Leu	Glu	Asn	Asp	Phe	Phe	Asn	Ser	Pro	Pro	Arg	Lys	Thr
1				5					10					15	
Val	Gln	Phe	Gly	Gly	Thr	Val	Thr	Glu	Val	Leu	Leu	Lys	Tyr	Lys	Lys
			20					25					30		
Gly	Glu	Thr	Asn	Asp	Phe	Glu	Leu	Leu	Lys	Asn	Gln	Leu	Leu	Asp	Pro
			35				40					45			
Asp	Ile	Lys	Arg	Leu	Pro	Trp	Leu	Asn	Arg	Ser	Gln	Thr	Val	Val	Glu
			50				55				60				
Glu	Tyr	Leu	Ala	Phe	Leu	Gly	Asn	Leu	Val	Ser	Ala	Gln	Thr	Val	Phe
65					70					75					80
Leu	Arg	Pro	Cys	Leu	Ser	Met	Ile	Ala	Ser						
				85					90						

<210> 6177

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 6177

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 120  
 ttctagcttt ctgtctctat gggTACCTCA gtggagtcT tgggcgaatg ggccatgctg  
 180  
 tttgccagtg gaggcttcca ggtgaaactc tatgacattg agcaacagca gataaggaac  
 240  
 gccctggaaa acatcagaaa ggagatgaag ttgctggagc aggcagggtc tctgaaaggc  
 300  
 tccctgagtg tggaagagca gctgtcactc atcagtgggt gtcccaatat ccaagaagca  
 360  
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 420  
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 480  
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 540  
 catcctgtga atccgccata ctacatcccg ctggTtgagc tggTccccca cccggagacg  
 600



gcccctacga cagtggacag aaccacgcc ctgatgaaga agattgganc agtgcccat  
 660  
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 720  
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 840  
 aatgcagaag gtatgttaag ctactgcgac agatacagcg aaggcataaa acatgtccta  
 900  
 cagacttttg gacccattcc agagttttcc agggccactg ctgagaaggt taaccaggac  
 960  
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 gagtgcctca tgagactcgc caagttgaag agtcaagtgc agccccagtg aatttcttgt  
 1080  
 aatgcagctt ccactcctct cattggaggc cctatttggg aacactgcaa gcccttaatc  
 1140  
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 1260  
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 1536

&lt;210&gt; 6178

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6178

Met	Gly	Thr	Ser	Val	Glu	Ser	Leu	Gly	Glu	Trp	Ala	Met	Leu	Phe	Ala
1				5				10					15		
Ser	Gly	Gly	Phe	Gln	Val	Lys	Leu	Tyr	Asp	Ile	Glu	Gln	Gln	Gln	Ile
		20						25				30			
Arg	Asn	Ala	Leu	Glu	Asn	Ile	Arg	Lys	Glu	Met	Lys	Leu	Leu	Glu	Gln
		35					40					45			
Ala	Gly	Ser	Leu	Lys	Gly	Ser	Leu	Ser	Val	Glu	Glu	Gln	Leu	Ser	Leu
	50				55					60					
Ile	Ser	Gly	Cys	Pro	Asn	Ile	Gln	Glu	Ala	Val	Glu	Gly	Ala	Met	His
65					70				75					80	
Ile	Gln	Glu	Cys	Val	Pro	Glu	Asp	Leu	Glu	Leu	Lys	Lys	Lys	Ile	Phe
			85					90						95	
Ala	Gln	Leu	Asp	Ser	Ile	Ile	Asp	Asp	Arg	Val	Ile	Leu	Ser	Ser	Ser
			100					105					110		
Thr	Ser	Cys	Leu	Met	Pro	Ser	Lys	Leu	Phe	Ala	Gly	Leu	Val	His	Val



115	120	125
Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro		
130	135	140
Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp		
145	150	155
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser		
165	170	175
Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn		
180	185	190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu		
195	200	205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala		
210	215	220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu		
225	230	235
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr		
245	250	255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn		
260	265	270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala		
275	280	285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys		
290	295	300
Ser Gln Val Gln Pro Gln		
305	310	

&lt;210&gt; 6179

&lt;211&gt; 2940

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6179

```

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120
aagccataca ggctgtgaag gtccagtcct tccaaatgaa gagatgcctg gacaaaaaca
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540
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660

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2280



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 2760  
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<210> 6180

<211> 751

<212> PRT

<213> Homo sapiens

<400> 6180

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			20					25					30		
Trp	Arg	Xaa	Tyr	Leu	Thr	Asp	Glu	Phe	Ala	Lys	Gly	Arg	Lys	Val	Ala
		35					40					45			
Asp	Leu	Tyr	Glu	Leu	Val	Gln	Tyr	Ala	Gly	Asn	Ile	Ile	Pro	Arg	Leu
		50				55					60				
Tyr	Leu	Leu	Ile	Thr	Val	Gly	Val	Val	Tyr	Val	Lys	Ser	Phe	Pro	Gln
65					70				75					80	
Ser	Arg	Lys	Asp	Ile	Leu	Lys	Asp	Leu	Val	Glu	Met	Cys	Arg	Gly	Val
			85					90					95		
Gln	His	Pro	Leu	Arg	Gly	Leu	Phe	Leu	Arg	Asn	Tyr	Leu	Leu	Gln	Cys
		100						105				110			
Thr	Arg	Asn	Ile	Leu	Pro	Asp	Glu	Gly	Glu	Pro	Thr	Asp	Glu	Glu	Thr
		115					120					125			
Thr	Gly	Asp	Ile	Ser	Asp	Ser	Met	Asp	Phe	Val	Leu	Leu	Asn	Phe	Ala
		130				135					140				
Glu	Met	Asn	Lys	Leu	Trp	Val	Arg	Met	Gln	His	Gln	Gly	His	Ser	Arg
145					150				155					160	
Asp	Arg	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Gln	Glu	Leu	Arg	Ile	Leu	Val
			165					170					175		
Gly	Thr	Asn	Leu	Val	Arg	Leu	Ser	Xaa	Ser	Trp	Arg	Cys	Lys	Cys	Gly
		180						185				190			
Thr	Leu	Gln	Gln	Ile	Val	Leu	Thr	Gly	Ile	Leu	Glu	Gln	Val	Val	Asn



			195						200						205			
Cys	Arg	Asp	Ala	Leu	Ala	Gln	Glu	Tyr	Leu	Met	Glu	Cys	Ile	Ile	Gln			
	210					215					220							
Val	Phe	Pro	Asp	Glu	Phe	His	Leu	Gln	Thr	Leu	Asn	Pro	Phe	Leu	Arg			
225					230					235					240			
Ala	Cys	Ala	Glu	Leu	His	Gln	Asn	Val	Asn	Val	Lys	Asn	Ile	Ile	Ile			
				245					250						255			
Ala	Leu	Ile	Asp	Arg	Leu	Ala	Leu	Phe	Ala	His	Arg	Glu	Asp	Gly	Pro			
			260					265					270					
Gly	Ile	Pro	Ala	Asp	Ile	Lys	Leu	Phe	Asp	Ile	Phe	Ser	Gln	Gln	Val			
		275					280					285						
Ala	Thr	Val	Ile	Gln	Ser	Arg	Gln	Asp	Met	Pro	Ser	Glu	Asp	Val	Val			
	290					295						300						
Ser	Leu	Gln	Val	Ser	Leu	Ile	Asn	Leu	Ala	Met	Lys	Cys	Tyr	Pro	Asp			
305					310					315					320			
Arg	Val	Asp	Tyr	Val	Asp	Lys	Val	Leu	Glu	Thr	Thr	Val	Glu	Ile	Phe			
				325					330					335				
Asn	Lys	Leu	Asn	Leu	Glu	His	Ile	Ala	Thr	Ser	Ser	Ala	Val	Ser	Lys			
			340					345					350					
Glu	Leu	Thr	Arg	Leu	Leu	Lys	Ile	Pro	Val	Asp	Thr	Tyr	Asn	Asn	Ile			
		355					360					365						
Leu	Thr	Val	Leu	Lys	Leu	Lys	His	Phe	His	Pro	Leu	Phe	Glu	Tyr	Phe			
	370					375						380						
Asp	Tyr	Glu	Ser	Arg	Lys	Ser	Met	Ser	Cys	Tyr	Val	Leu	Ser	Asn	Val			
385					390					395					400			
Leu	Asp	Tyr	Asn	Thr	Glu	Ile	Val	Ser	Gln	Asp	Gln	Val	Asp	Ser	Ile			
				405					410					415				
Met	Asn	Leu	Val	Ser	Thr	Leu	Ile	Gln	Asp	Gln	Pro	Asp	Gln	Pro	Val			
			420					425					430					
Glu	Asp	Pro	Asp	Pro	Glu	Asp	Phe	Ala	Asp	Glu	Gln	Ser	Leu	Val	Gly			
		435					440					445						
Arg	Phe	Ile	His	Leu	Leu	Arg	Ser	Glu	Asp	Pro	Asp	Gln	Gln	Tyr	Leu			
	450					455					460							
Ile	Leu	Asn	Thr	Ala	Arg	Lys	His	Phe	Gly	Ala	Gly	Gly	Asn	Gln	Arg			
465					470					475					480			
Ile	Arg	Phe	Thr	Leu	Pro	Pro	Leu	Val	Phe	Ala	Ala	Tyr	Gln	Leu	Ala			
				485					490					495				
Phe	Arg	Tyr	Lys	Glu	Asn	Ser	Lys	Trp	Met	Thr	Asn	Gly	Lys	Arg	Asn			
			500					505					510					
Ala	Arg	Arg	Phe	Phe	His	Leu	Pro	Xaa	Gln	Thr	Ile	Ser	Ala	Leu	Ile			
		515					520						525					
Lys	Ala	Glu	Leu	Ala	Glu	Leu	Pro	Leu	Arg	Leu	Phe	Leu	Gln	Gly	Ala			
		530																



625		630		635		640									
Asn	Gly	Glu	Glu	Leu	His	Gly	Gly	Lys	Arg	Val	Met	Glu	Cys	Leu	Lys
		645		650		655									
Lys	Ala	Leu	Lys	Ile	Ala	Asn	Gln	Cys	Met	Asp	Pro	Ser	Leu	Gln	Val
		660		665		670									
Gln	Leu	Phe	Ile	Glu	Ile	Leu	Asn	Arg	Tyr	Ile	Tyr	Phe	Tyr	Glu	Lys
		675		680		685									
Glu	Asn	Asp	Ala	Val	Thr	Ile	Gln	Val	Leu	Asn	Gln	Leu	Ile	Gln	Lys
		690		695		700									
Ile	Arg	Glu	Asp	Leu	Pro	Asn	Leu	Glu	Ser	Ser	Glu	Glu	Thr	Glu	Gln
705				710		715									720
Ile	Asn	Lys	His	Phe	His	Asn	Thr	Leu	Glu	His	Leu	Arg	Leu	Arg	Arg
		725		730		735									
Glu	Ser	Pro	Glu	Ser	Glu	Gly	Pro	Ile	Tyr	Glu	Gly	Leu	Ile	Leu	
		740		745		750									

&lt;210&gt; 6181

&lt;211&gt; 1135

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6181

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900  
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960



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<210> 6182

<211> 236

<212> PRT

<213> Homo sapiens

<400> 6182

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		20						25					30		
Glu	Val	Phe	Phe	Leu	Pro	Asp	Leu	Pro	Thr	Thr	Pro	Tyr	Phe	Ser	Arg
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Asp	Ala	Gln	Lys	His	Asp	Val	Glu	Val	Leu	Glu	Arg	Asn	Phe	Gln	Thr
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Ile	Leu	Cys	Glu	Phe	Glu	Thr	Leu	Tyr	Lys	Ala	Phe	Ser	Asn	Cys	Ser
65					70				75					80	
Leu	Pro	Gln	Gly	Trp	Lys	Met	Asn	Ser	Thr	Pro	Ser	Gly	Glu	Trp	Phe
			85					90					95		
Thr	Phe	Tyr	Leu	Val	Asn	Gln	Gly	Val	Cys	Val	Pro	Arg	Asn	Cys	Arg
		100					105					110			
Lys	Cys	Pro	Arg	Thr	Tyr	Arg	Leu	Leu	Gly	Ser	Leu	Arg	Thr	Cys	Ile
		115				120						125			
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Thr	Val	Ile	Thr	Glu	His	Tyr	Gly	Pro	Thr	Asn	Ile	Arg	Ile	Arg	Cys
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His	Leu	Gly	Leu	Lys	Thr	Pro	Asn	Gly	Cys	Glu	Leu	Val	Val	Gly	Gly
			165					170					175		
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		180					185					190			
Phe	Leu	His	Ala	Ala	Phe	His	Glu	Gly	Ser	Ala	Glu	Asp	Gly	Pro	Arg
		195				200					205				
Val	Val	Phe	Met	Val	Asp	Leu	Trp	His	Pro	Asn	Val	Ala	Ala	Ala	Glu
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<210> 6183

<211> 2530

<212> DNA

<213> Homo sapiens

<400> 6183

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&lt;210&gt; 6184

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6184

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Gly	Met	Gly	Asn	Arg	Gly	Gly	Phe	Arg	Gly	Gly	Phe	Gly	Ser	Gly	Ile
		35					40					45			
Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly
	50					55				60					
Ala	Arg	Gly	Gly	Lys	Ala	Glu	Asp	Lys	Glu	Trp	Met	Pro	Val	Thr	Lys
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Leu	Gly	Arg	Leu	Val	Lys	Asp	Met	Lys	Ile	Lys	Ser	Leu	Glu	Glu	Ile
			85					90					95		
Tyr	Leu	Phe	Ser	Leu	Pro	Ile	Lys	Glu	Ser	Glu	Ile	Ile	Asp	Phe	Phe
			100					105					110		
Leu	Gly	Ala	Ser	Leu	Lys	Asp	Glu	Val	Leu	Lys	Ile	Met	Pro	Val	Gln
		115					120					125			
Lys	Gln	Thr	Arg	Ala	Gly	Gln	Arg	Thr	Arg	Phe	Lys	Ala	Phe	Val	Ala
	130					135					140				
Ile	Gly	Asp	Tyr	Asn	Gly	His	Val	Gly	Leu	Gly	Val	Lys	Cys	Ser	Lys



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 His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val  
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 Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val  
                                  210                      215                      220  
 Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser  
 225                                   230                                   235                                   240  
 Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe  
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 Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys  
                                  260                                   265                                   270  
 Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu  
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<210> 6185

<211> 1231

<212> DNA

<213> Homo sapiens

<400> 6185

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<210> 6186

<211> 133

<212> PRT

<213> Homo sapiens

<400> 6186

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			20					25					30		
Gly	Tyr	Ile	Cys	Arg	Ile	Cys	His	Lys	Phe	Tyr	His	Ser	Asn	Ser	Gly
		35					40					45			
Ala	Gln	Leu	Ser	His	Cys	Lys	Ser	Leu	Gly	His	Phe	Glu	Asn	Leu	Gln
	50					55					60				
Lys	Tyr	Lys	Ala	Ala	Lys	Asn	Pro	Ser	Pro	Thr	Thr	Arg	Pro	Val	Ser
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Arg	Arg	Cys	Ala	Ile	Asn	Ala	Arg	Asn	Ala	Leu	Thr	Ala	Leu	Phe	Thr
				85					90					95	
Ser	Ser	Gly	Arg	Pro	Pro	Ser	Gln	Pro	Asn	Thr	Gln	Asp	Lys	Thr	Pro
			100					105					110		
Ser	Lys	Val	Thr	Ala	Arg	Pro	Ser	Gln	Pro	Pro	Leu	Pro	Arg	Arg	Ser
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<210> 6187

<211> 909

<212> DNA

<213> Homo sapiens

<400> 6187

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 909

<210> 6188

<211> 227

<212> PRT

<213> Homo sapiens

<400> 6188

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Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	Ala	His
		20					25						30		
Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	Leu	Glu	Val
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Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	Val	Pro	Asp	Cys
	50					55					60				
Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	Glu	Pro	Ile	Val	Lys
65					70					75				80	
Phe	Pro	Gly	Ala	Val	Tyr	Gly	Ala	Thr	Tyr	Ile	Leu	Val	Met	Val	Asp
			85					90						95	
Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	Arg	Gln	Arg	Phe	Trp	Arg	His
			100					105					110		
Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile
	115					120						125			
Gln	Gly	Gln	Glu	Leu	Ser	Ala	Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His
	130					135					140				
Ser	Gly	Phe	His	Arg	Tyr	Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys
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[illegible]

<210> 6189

<211> 2761

<212> DNA

<213> Homo sapiens

<400> 6189

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a

2761

&lt;210&gt; 6190

&lt;211&gt; 576

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6190

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Pro Asp Gly Ala Thr Ala Gln Thr Ser Ala Asp Gly Ser Gln Ala Gln
          20          25          30
Asn Leu Glu Ser Arg Thr Ile Ile Arg Gly Lys Arg Thr Arg Lys Ile
          35          40          45
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Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser
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&lt;210&gt; 6191

&lt;211&gt; 3021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6191

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<211> 815

<212> PRT

<213> Homo sapiens

<400> 6192

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Asp	Asp	Thr	His	Tyr	Phe	Val	Met	Thr	Ala	Lys	Lys	Gln	Cys	Leu	Leu
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Gln	Asp	Ala	His	Gly	Gln	Pro	Asp	Val	Ser	Ala	Phe	Asp	Phe	Thr	Ser
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Pro	Leu	Gly	Thr	Gly	Val	Ala	Arg	Gly	Phe	Leu	Ala	Ala	Phe	Asp	Ala



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Ala	Trp	Met	Val	Lys	Arg	Trp	Ala	Glu	Gly	Ala	Glu	Ser	Leu	Glu	Val
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Glu	Asn	Met	His	Arg	Asn	Val	Ala	Gln	Tyr	Gly	Leu	Asp	Pro	Ala	Thr
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Thr	Leu	Gln	Arg	Ser	Arg	Ala	Lys	Asp	Leu	Leu	Gln	Glu	Asn	Ala	Glu
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Ser	Thr	Glu	Val	Pro	Pro	Asp	Pro	Glu	Pro	Gly	Val	Pro	Leu	Thr	Pro
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Gln	His	Leu	Pro	Gln	Thr	Asp	His	Lys	Ala	Glu	Gly	Ser	Asp	Arg	Gly
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Leu Gln Thr Phe Ala Lys Thr Ser Gly Thr Met Asn Asn Tyr Pro Thr		
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Phe Cys Lys Ala Gln Thr Ile Gln Arg Arg Leu Asn Glu Ile Glu Ala		
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Ala Leu Arg Glu Leu Glu Ala Glu Gly Val Lys Leu Glu Leu Ala Leu		
690	695	700
Arg Arg Gln Ser Ser Ser Pro Glu Gln Gln Lys Lys Leu Trp Val Gly		
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Gln Leu Leu Gln Leu Val Asp Lys Lys Asn Ser Leu Val Ala Glu Glu		
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&lt;210&gt; 6193

&lt;211&gt; 2893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6193

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<211> 621

<212> PRT

<213> Homo sapiens

<400> 6194

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Val	Asn	Ser	Ser	Leu	Leu	Glu	Tyr	Tyr	Thr	Glu	Leu	Asp	Ala	Val	Val				
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Leu	His	Gly	Val	Lys	Asp	Lys	Pro	Val	Leu	Ser	Leu	Lys	Thr	Ser	Leu				
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Cys	Gly	Met	Asp	Ser	Leu	Asn	Lys	Lys	Phe	Ser	Ser	Ala	Val	Leu	Gly				
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Glu	Gly	Pro	Asn	Asn	Gly	Tyr	Phe	Asp	Lys	Leu	Pro	Tyr	Glu	Leu	Ile				
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Gln	Leu	Ile	Leu	Asn	His	Leu	Thr	Leu	Pro	Asp	Leu	Cys	Arg	Leu	Ala				
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Leu	Glu	Phe	Leu	Gln	Ser	Arg	Cys	Thr	Leu	Val	Gln	Trp	Leu	Asn	Leu				
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Ser	Trp	Thr	Gly	Asn	Arg	Gly	Phe	Ile	Ser	Val	Ala	Gly	Phe	Ser	Arg				
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Ser	His	Phe	Leu	Asn	Glu	Thr	Cys	Leu	Glu	Val	Ile	Ser	Glu	Met	Cys				
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Pro	Asn	Leu	Gln	Ala	Leu	Asn	Leu	Ser	Ser	Cys	Asp	Lys	Leu	Pro	Pro				
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Gln	Ala	Phe	Asn	His	Ile	Ala	Lys	Leu	Cys	Ser	Leu	Lys	Arg	Leu	Val				
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Glu	Asp	Tyr	Asp	Val	Ile	Ala	Ser	Met	Ile	Gly	Ala	Lys	Cys	Lys	Lys				
465				470					475					480					
Leu	Arg	Thr	Leu	Asp	Leu	Trp	Arg	Cys	Lys	Asn	Ile	Thr	Glu	Asn	Gly				
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Ile	Ala	Glu	Leu	Ala	Ser	Gly	Cys	Pro	Leu	Leu	Glu	Glu	Leu	Asp	Leu				
			500					505				</							



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 <211> 518  
 <212> DNA  
 <213> Homo sapiens

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<210> 6196  
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 <213> Homo sapiens

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 Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His  
 50 55 60  
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 65 70 75 80  
 Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser  
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 Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln  
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 His Arg Thr Gly Trp  
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<210> 6197  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6197

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&lt;210&gt; 6198

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6198

Met Gly Ala Ser His Gly Asn Trp Glu Val Pro Arg Gln Ser Gln Arg



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Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln
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Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val
65             70             75             80
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys
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Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr
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Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val
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&lt;210&gt; 6199

&lt;211&gt; 1777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6199

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&lt;210&gt; 6200

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6200

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Pro	Pro	Lys	Pro	Asp	Cys	Gln	Gln	Lys	Pro	Ser	Pro	Ser	Glu	Gly	Gln
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Cys	Pro	Val	Pro	Gly	Met	Pro	Gly	Gly	Arg	Pro	Leu	Cys	Cys	Cys	His
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Cys	Cys	Gln	His	Cys	Pro	Ala	Cys	Glu	Ala	Arg	Arg	Ser	Pro	Cys	Pro
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Thr	Arg	Cys	Cys	Cys	Ser	Ser	Asp	Pro	Cys	Cys	Glu	Glu	Trp	Asp	Ser
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Trp	Ser	Lys	Lys	Leu	Val	Phe	Leu	Phe	Cys	Ile	Asn	Glu	Lys	Asn	Pro
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Gly	Glu	Ala	Ala	Thr	Leu	Pro	Ser	Gln	Arg	Asp	Ala	Leu	Pro	Cys	Phe
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Gly	Val	Leu	Ser	Pro	Phe	Pro	Pro	Leu	Val	Gln	Gly	Gln	Pro	Ser	Arg



145  
Ser Ser Trp Phe

150

155

160

&lt;210&gt; 6201

&lt;211&gt; 604

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6201

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gccg

604

&lt;210&gt; 6202

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6202

Met Gly Glu Ala Arg Gly Pro Arg Gly Thr Ser Arg Arg Pro Leu Ala  
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Gly Gln Trp Thr Leu Gly Arg Gly Ala Glu Trp Ala Ala Leu Arg Arg  
35 40 45

Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro  
50 55 60

Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His  
65 70 75 80

Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg  
85 90 95

Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala  
100 105 110

Gly Asp His Ala Gly Ala Gln Gly Glu Arg Gln Asp



115

120

&lt;210&gt; 6203

&lt;211&gt; 3462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6203

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<210> 6204

<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204

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Arg	Trp	Arg	Gln	Leu	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Val	Glu
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Lys	Ala	Trp	Met	Ala	Phe	Met	Ser	Glu	Ala	Glu	Arg	Val	Ser	Glu	Leu
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 Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp  
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&lt;210&gt; 6205

&lt;211&gt; 926

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6205

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<210> 6206

<211> 92

<212> PRT

<213> Homo sapiens

<400> 6206

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			20					25					30		
Arg	Glu	Gly	Lys	Glu	Phe	Ala	Asp	Ser	Gln	Lys	Leu	Leu	Phe	Met	Glu
		35					40					45			
Thr	Ser	Ala	Lys	Leu	Asn	His	Gln	Val	Ser	Glu	Val	Phe	Asn	Thr	Val
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Ala	Gln	Glu	Leu	Leu	Gln	Arg	Ser	Asp	Glu	Glu	Gly	Gln	Ala	Leu	Xaa
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<210> 6207

<211> 1384

<212> DNA

<213> Homo sapiens

<400> 6207

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&lt;210&gt; 6208

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6208

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		20						25					30		
Ser	Ala	Gly	Leu	Ser	Leu	Val	Gly	Leu	Leu	Thr	Leu	Gly	Ala	Val	Leu
		35					40					45			
Ser	Ala	Ala	Ala	Thr	Val	Arg	Glu	Ala	Gln	Gly	Leu	Met	Ala	Gly	Gly
		50				55					60				
Phe	Leu	Cys	Phe	Ser	Leu	Ala	Phe	Xaa	Ala	Gln	Val	Gln	Val	Val	Phe
65					70					75				80	
Trp	Arg	Leu	His	Ser	Pro	Thr	Gln	Val	Glu	Asp	Ala	Met	Leu	Asp	Thr



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Lys Ser Pro Phe Ser Arg Leu Gly Ser Thr Glu Ala Asp Leu Cys Gln
      130              135              140
Gly Glu Glu Ala Ala Arg Glu Asp Cys Leu Gln Gly Ile Arg Ser Phe
      145              150              155              160
Leu Arg Thr His Gln Gln Val Ala Ser Ser Leu Thr Ser Ile Gly Leu
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Ala Leu Thr Val Ser Ala Leu Leu Phe Ser Ser Phe Leu Trp Phe Ala
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Ile Arg Cys Gly Cys Ser Leu Asp Arg Lys Gly Lys Tyr Thr Leu Thr
      195              200              205
Pro Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro Ser Leu Leu Arg Cys
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Ser Gln Gly Gly Pro Thr His Cys Leu His Ser Glu Ala Val Ala Ile
      225              230              235              240
Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp Leu Gln Glu Ser Asp
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Ser Asp
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&lt;210&gt; 6209

&lt;211&gt; 2269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6209

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<211> 165

<212> PRT

<213> Homo sapiens

<400> 6210

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Ser	Pro	Ser	Leu	Arg	Gly	Thr	His	Leu	Leu	Phe	Leu	Pro	Gln	Ala	Asp
		35					40					45			
Val	Val	Asp	Glu	Ala	Ile	Asp	Ser	Leu	Ala	Arg	Thr	Lys	Gly	Val	Met
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Lys	Pro	Pro	Cys	Ser	Glu	Gly	Ser	Pro	Trp	Arg	Cys	Pro	His	Phe	Thr
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		115					120					125			
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<210> 6211

<211> 2163

<212> DNA

<213> Homo sapiens

<400> 6211

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 <213> Homo sapiens

<400> 6212  
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 Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Val Ser Ala Leu Ala  
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 Glu Ser Asp Thr Ser Pro Asp Phe His Asn Gln Glu Asn Glu Pro Ser  
 130 135 140  
 Gln Glu Asp Pro Glu Asp Leu Asp Gly Ser Val Gln Gly Val Lys Pro  
 145 150 155 160  
 Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His  
 165 170 175  
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&lt;210&gt; 6214

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6214

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			20					25					30		
Glu	Pro	Ala	Xaa	Cys	Leu	His	Gln	Thr	Gly	Pro	His	Leu	Gly	Pro	Pro
		35					40				45				
Pro	Pro	Pro	Pro	Pro	Thr	Pro	Pro	Pro	Thr	Cys	Ile	Ala	Gln	Ile	Gln
	50					55					60				
Val	Met	Met	Glu	Gln	Ile	Arg	Pro	Trp	His	Ser	Arg	Met	Lys	Arg	Arg
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Lys	Gly	Val	Met	Glu	Gly	Gln	Ser	Leu	Glu	Pro	Ala	Ala	Ser	Ser	Gly
				85				90						95	
Pro	Leu	Pro	Thr	Asp											
				100											



&lt;210&gt; 6215

&lt;211&gt; 651

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6215

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 651

&lt;210&gt; 6216

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6216

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			20					25					30		
Glu	Ala	Val	Ala	Ile	Gly	Pro	Arg	Gly	Cys	Ser	Gly	Ser	Leu	Arg	Trp
			35				40					45			
Leu	Gln	Glu	Ser	Asp	Ala	Ala	Pro	Leu	Pro	Leu	Ser	Cys	His	Leu	Ala
	50				55					60					
Ala	His	Arg	Ala	Leu	Gln	Gly	Arg	Ser	Arg	Gly	Gly	Leu	Ser	Gly	Cys
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Pro	Glu	Arg	Gly	Leu	Ser	Asp									
				85											

&lt;210&gt; 6217

&lt;211&gt; 2955

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6217



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&lt;210&gt; 6218

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6218

Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr



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      35           40           45
Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
      50           55           60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
      65           70           75           80
Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
      85           90           95
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
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Thr Arg Leu Lys Thr
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&lt;210&gt; 6219

&lt;211&gt; 2495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6219

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 <211> 179  
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<400> 6220  
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 Pro Tyr Ser Pro Pro Ala Ala Arg Pro Gly Pro Gly Xaa Pro Leu Trp  
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 Cys Gln Arg Val Ser Gln Asn Pro Gly Pro Ser Pro Ser Xaa Gly Pro  
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 Leu Pro Ser Pro Arg Pro Val Cys Trp Asp Gly Ala Ser Thr Leu Arg  
 115 120 125  
 Leu Val Lys Ala Glu Leu Asn Ser Ser Asn Glu Ser Ala Gly Trp Ala  
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<210> 6221  
 <211> 1487  
 <212> DNA  
 <213> Homo sapiens

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<210> 6222

<211> 330

<212> PRT

<213> Homo sapiens

<400> 6222

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Lys	Leu	His	Lys	Cys	Lys	Glu	Phe	Val	Asp	Ser	Cys	Arg	Leu	Thr	Phe
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Glu	Arg	Ile	Leu	Thr	Arg	Ala	Lys	Ser	Tyr	Glu	Cys	Ser	Glu	Cys	Gly



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Lys	Val	Ile	Arg	Arg	Lys	Ala	Trp	Phe	Asp	Gln	His	Gln	Arg	Ile	His
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Pro	Tyr	Arg	Cys	His	Asp	Cys	Gly	Lys	Cys	Phe	Arg	Gln	Leu	Ala	Tyr
			165						170						175
Leu	Val	Glu	His	Lys	Arg	Ile	His	Thr	Lys	Glu	Lys	Pro	Tyr	Lys	Cys
			180						185					190	
Ser	Lys	Cys	Glu	Lys	Thr	Phe	Ser	Gln	Asn	Ser	Thr	Leu	Ile	Arg	His
		195						200					205		
Gln	Val	Ile	His	Ser	Gly	Glu	Lys	Arg	His	Lys	Cys	Leu	Glu	Cys	Gly
	210						215					220			
Lys	Ala	Phe	Gly	Arg	His	Ser	Thr	Leu	Leu	Cys	His	Gln	Gln	Ile	His
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Ser	Lys	Pro	Asn	Thr	His	Lys	Cys	Ser	Glu	Cys	Gly	Gln	Ser	Phe	Gly
			245						250						255
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&lt;210&gt; 6223

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6223

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<211> 156

<212> PRT

<213> Homo sapiens

<400> 6224

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Tyr	Gln	Val	Lys	Ile	Ser	Pro	Thr	Pro	Gln	Leu	Gly	Ala	Ala	Ser	Ser
		20						25					30		
Ala	Glu	Gly	His	Val	Gly	Gln	Gly	Ala	Pro	Gly	Leu	Met	Gly	Asn	Met
		35				40						45			
Asn	Pro	Glu	Gly	Gly	Val	Asn	His	Glu	Asn	Gly	Met	Asn	Arg	Asp	Gly
		50				55					60				
Gly	Met	Ile	Pro	Glu	Gly	Gly	Gly	Asn	Gln	Glu	Pro	Arg	Gln	Gln	
65				70					75				80		
Pro	Gln	Pro	Pro	Pro	Glu	Glu	Pro	Ala	Gln	Ala	Ala	Met	Glu	Gly	Pro
				85					90				95		
Gln	Pro	Glu	Asn	Met	Gln	Pro	Arg	Thr	Arg	Arg	Thr	Lys	Phe	Thr	Leu
				100				105					110		
Leu	Gln	Val	Glu	Glu	Leu	Glu	Ser	Val	Phe	Arg	His	Thr	Gln	Tyr	Pro
		115					120					125			
Asp	Val	Pro	Thr	Arg	Arg	Glu	Leu	Ala	Glu	Asn	Leu	Gly	Val	Thr	Glu
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<210> 6225

<211> 3851

<212> DNA

<213> Homo sapiens

<400> 6225

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<211> 246

<212> PRT

<213> Homo sapiens

<400> 6226

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		20						25				30			
Gln	Gly	Asp	Phe	Ile	Lys	Cys	Val	Glu	Gln	Lys	Thr	Asp	Ala	Leu	Gly
		35				40						45			
Lys	Gln	Ser	Val	Asn	Arg	Gly	Phe	Thr	Lys	Asp	Lys	Thr	Leu	Ser	Ser
	50					55					60				
Ile	Phe	Asn	Ile	Glu	Met	Val	Lys	Glu	Lys	Thr	Ala	Glu	Glu	Ile	Lys
65				70						75				80	
Gln	Ile	Trp	Gln	Gln	Tyr	Phe	Ala	Ala	Lys	Asp	Thr	Val	Tyr	Ala	Val
			85					90						95	
Ile	Pro	Ala	Glu	Lys	Phe	Asp	Leu	Ile	Trp	Asn	Arg	Ala	Gln	Ser	Cys
		100						105					110		
Pro	Thr	Phe	Leu	Cys	Ala	Leu	Pro	Arg	Arg	Glu	Gly	Tyr	Glu	Phe	Phe
		115					120					125			
Val	Gly	Gln	Trp	Thr	Gly	Thr	Glu	Leu	His	Phe	Thr	Ala	Leu	Ile	Asn
	130					135					140				
Ile	Gln	Thr	Arg	Gly	Glu	Ala	Ala	Ala	Ser	Gln	Leu	Ile	Leu	Tyr	His
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Tyr	Pro	Glu	Leu	Lys	Glu	Glu	Lys	Gly	Ile	Val	Leu	Met	Thr	Ala	Glu
			165					170						175	
Met	Asp	Ser	Thr	Phe	Leu	Asn	Val	Ala	Glu	Ala	Gln	Cys	Ile	Ala	Asn
		180						185					190		
Gln	Val	Gln	Leu	Phe	Tyr	Ala	Thr	Asp	Arg	Lys	Glu	Thr	Tyr	Gly	Leu
		195					200					205			
Val	Glu	Thr	Phe	Asn	Leu	Arg	Pro	Asn	Glu	Phe	Lys	Tyr	Met	Ser	Val
	210					215					220				
Ile	Ala	Glu	Leu	Glu	Gln	Ser	Gly	Leu	Gly	Ala	Glu	Leu	Lys	Cys	Ala
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Gln	Asn	Gln	Asn	Lys	Thr										



245

&lt;210&gt; 6227

&lt;211&gt; 830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6227

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&lt;210&gt; 6228

&lt;211&gt; 271

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6228

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20           25           30
Ile Pro Ser Pro Gly Arg Val Ala Ala Glu Trp Glu Val Gln Asn Arg
35           40           45
Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn
50           55           60
Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe
65           70           75           80
Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

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Gln	Phe	Pro	Val	Met	Thr	Glu	Ala	Ile	Thr	Gln	Ile	Arg	Ala	Lys	Gly			
			115				120						125					
Leu	Gln	Thr	Ala	Val	Leu	Ser	Asn	Asn	Phe	Tyr	Leu	Pro	Asn	Gln	Lys			
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Ser	Phe	Leu	Pro	Leu	Asp	Arg	Lys	Gln	Phe	Asp	Val	Ile	Val	Glu	Ser			
			145				150						155					
Cys	Met	Glu	Gly	Ile	Cys	Lys	Pro	Asp	Pro	Arg	Ile	Tyr	Lys	Leu	Cys			
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Leu	Glu	Gln	Leu	Gly	Leu	Gln	Pro	Ser	Glu	Ser	Ile	Phe	Leu	Asp	Asp			
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Leu	Gly	Thr	Asn	Leu	Lys	Glu	Ala	Ala	Arg	Leu	Gly	Ile	His	Thr	Ile			
			195				200						205					
Lys	Val	Asn	Asp	Pro	Glu	Thr	Ala	Val	Lys	Glu	Leu	Glu	Ala	Leu	Leu			
			210				215						220					
Gly	Phe	Thr	Leu	Arg	Val	Gly	Val	Pro	Asn	Thr	Arg	Pro	Val	Lys	Lys			
			225				230						235					
Thr	Met	Glu	Ile	Pro	Lys	Asp	Ser	Leu	Gln	Lys	Tyr	Leu	Lys	Asp	Leu			
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<210> 6229

<211> 3105

&lt;212&gt; DNA

<213> Homo sapiens

<400> 6229

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2340



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&lt;210&gt; 6230

&lt;211&gt; 944

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6230

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Ser	Leu	Val	Ser	Ala	Leu	Asp	Ser	Met	Cys	Ser	Ala	Leu	Ser	Lys	Leu
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Asn	Ala	Glu	Val	Ala	Cys	Val	Ala	Val	His	Asp	Glu	Ser	Ala	Phe	Val
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Val	Gly	Thr	Glu	Lys	Gly	Arg	Met	Phe	Leu	Asn	Ala	Arg	Lys	Glu	Leu
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Gln	Ser	Asp	Phe	Leu	Arg	Phe	Cys	Arg	Gly	Pro	Pro	Trp	Lys	Asp	Pro
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Glu	Ala	Glu	His	Pro	Lys	Lys	Val	Gln	Arg	Gly	Glu	Gly	Gly	Gly	Arg
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Arg	Lys	Met	Val	Glu	Glu	Val	Phe	Asp	Val	Leu	Tyr	Ser	Glu	Ala	Leu
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Glu	Ala	Pro	Ser	Cys	Pro	Leu	Ala	Pro	Ser	Asp	Leu	Gly	Leu	Ser	Arg						
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Pro	Met	Pro	Glu	Pro	Lys	Ala	Thr	Gly	Ala	Gln	Asp	Phe	Ser	Asp	Cys						
	290				295					300											
Cys	Gly	Gln	Lys	Pro	Thr	Gly	Pro	Gly	Gly	Pro	Leu	Ile	Gln	Asn	Val						
305					310					315					320						
His	Ala	Ser	Lys	Arg	Ile	Leu	Phe	Ser	Ile	Val	His	Asp	Lys	Ser	Glu						
			325					330						335							
Lys	Trp	Asp	Ala	Phe	Ile	Lys	Glu	Thr	Glu	Asp	Ile	Asn	Thr	Leu	Arg						
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Glu	Cys	Val	Gln	Ile	Leu	Phe	Asn	Ser	Arg	Tyr	Ala	Glu	Ala	Leu	Gly						
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Pro	Cys	Thr	Tyr	Gly	Val	Pro	Lys	Leu	Lys	Arg	Ile	Leu	Glu	Glu	Arg						
			405					410						415							
His	Ser	Ile	His	Phe	Ile	Ile	Lys	Arg	Met	Phe	Asp	Glu	Arg	Ile	Phe						
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Thr	Gly	Asn	Lys	Phe	Thr	Lys	Asp	Thr	Thr	Lys	Leu	Glu	Pro	Ala	Ser						
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Pro	Pro	Glu	Asp	Thr	Ser	Ala	Glu	Val	Ser	Arg	Ala	Thr	Val	Leu	Asp						
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Leu	Ala	Gly	Asn	Ala	Arg	Ser	Asp	Lys	Gly	Ser	Met	Ser	Glu	Asp	Cys						
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Gly	Pro	Gly	Thr	Ser	Gly	Glu	Leu	Gly	Gly	Leu	Arg	Pro	Ile	Lys	Ile						
			485					490						495							
Glu	Pro	Glu	Asp																		



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610	615	620
Lys Ile Leu Glu Ala Ser	Asn Ser Ile Gln Phe	Val Ile Lys Arg Pro
625	630	635
Glu Leu Leu Thr Glu Gly	Val Lys Glu Pro Ile	Val Asp Ser Gln Glu
645	650	655
Arg Asp Ser Gly Asp	Pro Leu Val Asp Glu	Ser Leu Lys Arg Gln Gly
660	665	670
Phe Gln Glu Asn Tyr Asp	Ala Arg Leu Ser Arg	Ile Asp Ile Ala Asn
675	680	685
Thr Leu Arg Glu Gln Val	Gln Asp Leu Phe Asn	Lys Tyr Gly Glu
690	695	700
Ala Leu Gly Ile Lys Tyr	Pro Val Gln Val Pro	Tyr Lys Arg Ile Lys
705	710	715
Ser Asn Pro Gly Ser Val	Ile Ile Glu Gly Leu	Pro Pro Gly Ile Pro
725	730	735
Phe Arg Lys Pro Cys Thr	Phe Gly Ser Gln Asn	Leu Glu Arg Ile Leu
740	745	750
Ala Val Ala Asp Lys Ile	Lys Phe Thr Val Thr	Arg Pro Phe Gln Gly
755	760	765
Leu Ile Pro Lys Pro Asp	Glu Asp Asp Ala Asn	Arg Leu Gly Glu Lys
770	775	780
Val Ile Leu Arg Glu Gln	Val Lys Glu Leu Phe	Asn Glu Lys Tyr Gly
785	790	795
Glu Ala Leu Gly Leu Asn	Arg Pro Val Leu Val	Pro Tyr Lys Leu Ile
805	810	815
Arg Asp Ser Pro Asp Ala	Val Glu Val Thr Gly	Leu Pro Asp Asp Ile
820	825	830
Pro Phe Arg Asn Pro Asn	Thr Tyr Asp Ile His	Arg Leu Glu Lys Ile
835	840	845
Leu Lys Ala Arg Glu His	Val Arg Met Val Ile	Ile Asn Gln Leu Gln
850	855	860
Pro Phe Ala Glu Ile Cys	Asn Asp Ala Lys Val	Pro Ala Lys Asp Ser
865	870	875
Ser Ile Pro Lys Arg Lys	Arg Lys Arg Val Ser	Glu Gly Asn Ser Val
885	890	895
Ser Ser Ser Ser Ser Ser	Ser Ser Ser Ser Ser	Asn Pro Asp Ser
900	905	910
Val Ala Ser Ala Asn Gln	Ile Ser Leu Val Gln	Trp Pro Met Tyr Met
915	920	925
Val Asp Tyr Ala Gly Leu	Asn Val Gln Leu Pro	Gly Pro Leu Asn Tyr
930	935	940

&lt;210&gt; 6231

&lt;211&gt; 471

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6231

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120



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<211> 138

<212> PRT

<213> Homo sapiens

<400> 6232

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Gly	Asp	Arg	Thr	Arg	Pro	Cys	Leu	Phe	Lys	Lys	Lys	Lys	Lys	Ala	Gln
			20					25					30		
Lys	Lys	Ser	Met	Leu	Gly	Gln	Lys	Ser	Gly	Pro	Ser	Gly	Leu	Leu	Thr
		35				40						45			
Trp	Arg	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Pro	Val	Ala	Pro	Ile	Ser	Ile
	50					55				60					
Trp	Asn	Gly	Thr	Thr	Pro	Arg	Gly	Glu	Pro	Pro	Pro	Asn	His	Ser	Ser
65					70				75					80	
Lys	Lys	Gly	Thr	Lys	Lys	Trp	Ala	Leu	Asp	Phe	Ser	Thr	Pro	Glu	Thr
			85					90						95	
Gln	Phe	Pro	Pro	Pro	Gly	Arg	Pro	Phe	Leu	Gly	Ile	Pro	Thr	Trp	Asp
		100					105						110		
Pro	Thr	Trp	Ala	Tyr	Ser	Gly	Pro	Tyr	Leu	Phe	Leu	Val	Gly	Ile	Gly
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Ile	Pro	Phe	Pro	Phe	Pro	Pro	Pro	Ser	Asn						
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<210> 6233

<211> 894

<212> DNA

<213> Homo sapiens

<400> 6233

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&lt;210&gt; 6234

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6234

Met	Ser	Phe	Lys	Arg	Glu	Gly	Asp	Asp	Trp	Ser	Gln	Leu	Asn	Val	Leu
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Lys	Lys	Arg	Arg	Val	Gly	Asp	Leu	Leu	Ala	Ser	Tyr	Ile	Pro	Glu	Asp
			20					25					30		
Glu	Ala	Leu	Met	Leu	Arg	Asp	Gly	Arg	Phe	Ala	Cys	Ala	Ile	Cys	Pro
		35					40					45			
His	Arg	Pro	Val	Leu	Asp	Thr	Leu	Ala	Met	Leu	Thr	Ala	His	Arg	Ala
	50					55					60				
Gly	Lys	Lys	His	Leu	Ser	Ser	Leu	Gln	Leu	Phe	Tyr	Gly	Lys	Lys	Gln
65				70					75						80
Pro	Gly	Lys	Glu	Arg	Lys	Gln	Asn	Pro	Lys	His	Gln	Asn	Glu	Leu	Arg
			85					90					95		
Arg	Glu	Glu	Thr	Lys	Ala	Glu	Ala	Pro	Leu	Leu	Thr	Gln	Thr	Arg	Leu
			100					105					110		
Ile	Thr	Gln	Ser	Ala	Leu	His	Arg	Ala	Pro	His	Tyr	Asn	Ser	Cys	Cys
	115						120					125			
Arg	Arg	Lys	Tyr	Arg	Pro	Glu	Ala	Pro	Gly	Pro	Ser	Val	Ser	Leu	Ser
	130					135					140				
Pro	Met	Pro	Pro	Ser	Glu	Val	Lys	Leu	Gln	Ser	Gly	Lys	Ile	Ser	Arg
145				150					155					160	
Glu	Pro	Glu	Pro	Ala	Ala	Gly	Pro	Gln	Ala	Glu	Glu	Ser	Ala	Thr	Val
			165					170					175		
Ser	Ala	Pro	Ala	Pro	Met	Ser	Pro	Thr	Arg	Arg	Arg	Ala	Leu	Asp	His
		180						185					190		
Tyr	Leu	Thr	Leu	Arg	Ser	Ser	Gly	Trp	Ile	Pro	Asp	Gly	Arg	Gly	Arg
	195						200				205				
Trp	Val	Lys	Asp	Glu	Asn	Val	Glu	Phe	Asp	Ser	Asp	Glu	Glu	Glu	Pro



210	215	220
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225	230	
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1320		



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&lt;210&gt; 6236

&lt;211&gt; 820

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6236

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Ala	Arg	Asp	Pro	Val	Arg	Asp	Phe	Pro	Phe	Glu	Leu	Ile	Pro	Glu	Pro
		20					25						30		
Pro	Glu	Gly	Gly	Leu	Pro	Gly	Pro	Trp	Ala	Leu	His	Arg	Gly	Arg	Lys
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Lys	Ala	Thr	Gly	Ser	Pro	Val	Ser	Ile	Phe	Val	Tyr	Asp	Val	Lys	Pro
	50					55				60					
Gly	Ala	Glu	Glu	Gln	Thr	Gln	Val	Ala	Lys	Ala	Ala	Phe	Lys	Arg	Phe
65				70					75					80	
Lys	Thr	Leu	Arg	His	Pro	Asn	Ile	Leu	Ala	Tyr	Ile	Asp	Gly	Leu	Glu
			85					90					95		
Thr	Glu	Lys	Cys	Leu	His	Val	Val	Thr	Glu	Ala	Val	Thr	Pro	Leu	Gly
	100							105					110		
Ile	Tyr	Leu	Lys	Ala	Arg	Val	Glu	Ala	Gly	Gly	Leu	Lys	Glu	Leu	Glu
	115					120					125				
Ile	Ser	Trp	Gly	Leu	His	Gln	Ile	Val	Lys	Ala	Leu	Ser	Phe	Leu	Val
	130					135					140				
Asn	Asp	Cys	Ser	Leu	Ile	His	Asn	Asn	Val	Cys	Met	Ala	Ala	Val	Phe
145				150						155				160	
Val	Asp	Arg	Ala	Gly	Glu	Trp	Lys	Leu	Gly	Gly	Leu	Asp	Tyr	Met	Tyr
			165					170						175	
Ser	Ala	Gln	Gly	Asn	Gly	Gly	Gly	Pro	Pro	Arg	Lys	Gly	Ile	Pro	Glu
		180						185					190		
Leu	Glu	Gln	Tyr	Asp	Pro	Pro	Glu	Leu	Ala	Asp	Ser	Ser	Gly	Arg	Val
	195						200						205		
Val	Arg	Glu	Lys	Trp	Ser	Ala	Asp	Met	Trp	Arg	Leu	Gly	Cys	Leu	Ile
	210					215					220				
Trp	Glu	Val	Phe	Asn	Gly	Pro	Leu	Pro	Arg	Ala	Ala	Ala	Leu	Arg	Asn



225		230		235		240
Pro Gly Lys Ile	Pro Lys Thr Leu Val	Pro His Tyr Cys Glu Leu Val				
	245	250		255		
Gly Ala Asn Pro	Lys Val Arg Pro Asn Pro Ala Arg Phe Leu Gln Asn					
	260	265		270		
Cys Arg Ala Pro	Gly Gly Phe Met Ser Asn Arg Phe Val Glu Thr Asn					
	275	280		285		
Leu Phe Leu Glu Glu Ile Gln Ile Lys Glu Pro Ala Glu Lys Gln Lys						
	290	295		300		
Phe Phe Gln Glu Leu Ser Lys Ser Leu Asp Ala Phe Pro Glu Asp Phe						
305	310	315		320		
Cys Arg His Lys Val Leu Pro Gln Leu Leu Thr Ala Phe Glu Phe Gly						
	325	330		335		
Asn Ala Gly Ala Val Val Leu Thr Pro Leu Phe Lys Val Gly Lys Phe						
	340	345		350		
Leu Ser Ala Glu Glu Tyr Gln Gln Lys Ile Ile Pro Val Val Val Lys						
	355	360		365		
Met Phe Ser Ser Thr Asp Arg Ala Met Arg Ile Arg Leu Leu Gln Gln						
	370	375		380		
Met Glu Gln Phe Ile Gln Tyr Leu Asp Glu Pro Thr Val Asn Thr Gln						
385	390	395		400		
Ile Phe Pro His Val Val His Gly Phe Leu Asp Thr Asn Pro Ala Ile						
	405	410		415		
Arg Glu Gln Thr Val Lys Ser Met Leu Leu Leu Ala Pro Lys Leu Asn						
	420	425		430		
Glu Ala Asn Leu Asn Val Glu Leu Met Lys His Phe Ala Arg Leu Gln						
	435	440		445		
Ala Lys Asp Glu Gln Gly Pro Ile Arg Cys Asn Thr Thr Val Cys Leu						
	450	455		460		
Gly Lys Ile Gly Ser Tyr Leu Ser Ala Ser Thr Arg His Arg Val Leu						
465	470	475		480		
Thr Ser Ala Phe Ser Arg Ala Thr Arg Asp Pro Phe Ala Pro Ser Arg						
	485	490		495		
Val Ala Gly Val Leu Gly Phe Ala Ala Thr His Asn Leu Tyr Ser Met						
	500	505		510		
Asn Asp Cys Ala Gln Lys Ile Leu Pro Val Leu Cys Gly Leu Thr Val						
	515	520		525		
Asp Pro Glu Lys Ser Val Arg Asp Gln Ala Phe Lys Ala Ile Arg Ser						
	530	535		540		
Phe Leu Ser Lys Leu Glu Ser Val Ser Glu Asp Pro Thr Gln Leu Glu						
545	550	555		560		
Glu Val Glu Lys Asp Val His Ala Ala Ser Ser Pro Gly Met Gly Gly						
	565	570		575		
Ala Ala Ala Ser Trp Ala Gly Trp Ala Val Thr Gly Val Ser Ser Leu						
	580	585		590		
Thr Ser Lys Leu Ile Arg Ser His Pro Thr Thr Ala Pro Thr Glu Thr						
	595	600		605		
Asn Ile Pro Gln Arg Pro Thr Pro Glu Gly Val Pro Ala Pro Ala Pro						
	610	615		620		
Thr Pro Val Pro Ala Thr Pro Thr Thr Ser Gly His Trp Glu Thr Gln						
625	630	635		640		
Glu Glu Asp Lys Asp Thr Ala Glu Asp Ser Ser Thr Ala Asp Arg Trp						
	645	650		655		
Asp Asp Glu Asp Trp Gly Ser Leu Glu Gln Glu Ala Glu Ser Val Leu						



660										665					670				
Ala	Gln	Gln	Asp	Asp	Trp	Ser	Thr	Gly	Gly	Gln	Val	Ser	Arg	Ala	Ser				
675										680					685				
Gln	Val	Ser	Asn	Ser	Asp	His	Lys	Ser	Ser	Lys	Ser	Pro	Glu	Ser	Asp				
690										695					700				
Trp	Ser	Ser	Trp	Glu	Ala	Glu	Gly	Ser	Trp	Glu	Gln	Gly	Trp	Gln	Glu				
705										710					715				
Pro	Ser	Ser	Gln	Glu	Pro	Pro	Pro	Asp	Gly	Thr	Arg	Leu	Ala	Ser	Glu				
725										730					735				
Tyr	Asn	Trp	Gly	Gly	Pro	Glu	Ser	Ser	Asp	Lys	Gly	Asp	Pro	Phe	Ala				
740										745					750				
Thr	Leu	Ser	Ala	Arg	Pro	Ser	Thr	Gln	Pro	Arg	Pro	Asp	Ser	Trp	Gly				
755										760					765				
Glu	Asp	Asn	Trp	Glu	Gly	Leu	Glu	Thr	Asp	Ser	Arg	Gln	Val	Lys	Ala				
770										775					780				
Glu	Leu	Ala	Arg	Lys	Lys	Arg	Glu	Glu	Arg	Arg	Arg	Glu	Met	Glu	Ala				
785										790					795				
Lys	Arg	Ala	Glu	Arg	Lys	Val	Ala	Lys	Gly	Pro	Met	Lys	Leu	Gly	Ala				
805										810					815				
Arg	Lys	Leu	Asp																
820																			

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<210> 6237
<211> 494
<212> DNA
<213> Homo sapiens
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<400> 6237
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aatacttaat aatgcttttc cgcaaccgct tcttgctgct gctggccctg gctgcgctgc
120
tggcctttgt gagcctcagc ctgcagttct tccacctgat cccgggtgctg actcctaaga
180
atggaatgag tagcaagagt cgaaagagaa tcatgcccga ccctgtgacg gagccccctg
240
tgacagaccc cgtttatgaa gctcttttgt actgcaacat ccccgagctg gccgagcgca
300
gcatggaagg tcatgccccg catcatttta agctggcttc agtgcattgt ttcattcgcc
360
acggagacag gtaccactg tatgtcattc caaaaacaaa gcgaccagaa attgactgca
420
ctctgggtggc taacaggaaa ccgtatcacc caaaactgga agcttttcatt agtcacatgt
480
tgagaggatc cgga
494
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<210> 6238
<211> 141
<212> PRT
<213> Homo sapiens
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<400> 6238  
Met Leu Phe Arg Asn Arg Phe Leu Leu Leu Leu Ala Leu Ala Ala Leu



1	5	10	15
Leu Ala Phe Val Ser Leu Ser Leu Gln Phe Phe His Leu Ile Pro Val			
	20	25	30
Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met			
	35	40	45
Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala			
	50	55	60
Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly			
65	70	75	80
His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg			
	85	90	95
His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro			
	100	105	110
Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys			
	115	120	125
Leu Glu Ala Phe Ile Ser His Met Leu Arg Gly Ser Gly			
130	135	140	

&lt;210&gt; 6239

&lt;211&gt; 911

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6239

```

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tggcagggac tagcgccga gttcctgcag gtgcggcg tgacggggc ttacaccga
120
gcctgtgtcc tcaccaccgc cgcggtgcag ctggagctcc tcagcccctt tcaactctac
180
ttcaaccgc accttgtgtt ccggaagttc caggtctgga ggctcgtcac caacttcctc
240
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300
cgcatgctgg aagagggctc cttccgcggc cgcacggccg acttcgtctt catgtttctc
360
ttcgggggcg tccttatgac cctgctggga ctctgggca gcctgttctt cctgggccag
420
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480
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540
ctgctgctgg gcaactccat cctcgtggac ctgctgggga ttgcgggtgg ccatatctac
600
tacttctcgg aggacgtctt cccaaccag cctggaggca agaggctcct gcagaccctt
660
ggcttcttaa agctgctcct ggatgccct gcagaagacc ccaattacct gccctcctt
720
gaggaacagc caggacccca tctgcaccc ccgcagcagt gaccccccacc cagggccagg
780
cctaagaggc ttctggcagc ttccatccta cccatgaccc ctacttgggg cagaaaaaac
840
ccatcctaaa ggctgggccc atgcaagggc ccacctgaat aaacagaatg agctgcaaaa
900

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aaaaaaaaa a  
911

<210> 6240  
<211> 235  
<212> PRT  
<213> Homo sapiens

<400> 6240  
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Thr Arg Ala Tyr Thr Ala Ala Cys Val Leu Thr Thr Ala Ala Val Gln  
20 25 30  
Leu Glu Leu Leu Ser Pro Phe Gln Leu Tyr Phe Asn Pro His Leu Val  
35 40 45  
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe  
50 55 60  
Gly Pro Leu Gly Phe Ser Phe Phe Phe Asn Met Leu Phe Val Phe Arg  
65 70 75 80  
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp  
85 90 95  
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly  
100 105 110  
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu  
115 120 125  
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe  
130 135 140  
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly  
145 150 155 160  
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile  
165 170 175  
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln  
180 185 190  
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu  
195 200 205  
Leu Asp Ala Pro Ala Glu Asp Pro Asn Tyr Leu Pro Leu Pro Glu Glu  
210 215 220  
Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln  
225 230 235

<210> 6241  
<211> 1515  
<212> DNA  
<213> Homo sapiens

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120  
cgccggggccc caggaggagg gccgggggag ccgcccgcgc ctgagctggc gttgctccc  
180  
ccaccgccc cgcgcgcgc gactcccgcg accccgacgt cctcggcgtc caacctggac  
240



ctgggagcgc agcgggacgc ctgggagacg ttccagaagc ggcagaagct tacctccgag  
 300  
 ggtgccgcca agctcctgct agacaccttt gaataccagg gcctggtgaa gcacacagga  
 360  
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 420  
 gactgcaatt gcagcatttg caagaagaag cagaatagac acttcattgt tccagcttct  
 480  
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 720  
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 780  
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 900  
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 1320  
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 1380  
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 1500  
 ctagaccac attct  
 1515

&lt;210&gt; 6242

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6242

Cys Gly Arg Cys Leu Gly Pro Ser Ala Thr Arg Thr Arg Arg Ser Ala  
 1 5 10 15  
 Ser Gln Ala Gly Ser Lys Ser Gln Ala Val Glu Lys Pro Pro Ser Glu



20 25 30  
 Lys Pro Arg Leu Arg Arg Ser Ser Arg Arg Ala Pro Gly Gly Gly Pro  
 35 40 45  
 Gly Glu Pro Pro Pro Pro Glu Leu Ala Leu Leu Pro Pro Pro Pro Pro  
 50 55 60  
 Pro Pro Pro Thr Pro Ala Thr Pro Thr Ser Ser Ala Ser Asn Leu Asp  
 65 70 75 80  
 Leu Gly Glu Gln Arg Asp Ala Trp Glu Thr Phe Gln Lys Arg Gln Lys  
 85 90 95  
 Leu Thr Ser Glu Gly Ala Ala Lys Leu Leu Leu Asp Thr Phe Glu Tyr  
 100 105 110  
 Gln Gly Leu Val Lys His Thr Gly Gly Cys His Cys Gly Ala Val Arg  
 115 120 125  
 Phe Glu Val Trp Ala Ser Ala Asp Leu His Ile Phe Asp Cys Asn Cys  
 130 135 140  
 Ser Ile Cys Lys Lys Lys Gln Asn Arg His Phe Ile Val Pro Ala Ser  
 145 150 155 160  
 Arg Phe Lys Leu Leu Lys Gly Ala Glu His Ile Thr Thr Tyr Thr Phe  
 165 170 175  
 Asn Thr His Lys Ala Gln His Thr Phe Cys Lys Arg Cys Gly Val Gln  
 180 185 190  
 Ser Phe Tyr Thr Pro Arg Ser Asn Pro Gly Gly Phe Gly Ile Ala Pro  
 195 200 205  
 His Cys Leu Asp Glu Gly Thr Val Arg Ser Met Val Thr Glu Glu Phe  
 210 215 220  
 Asn Gly Ser Asp Trp Glu Lys Ala Met Lys Glu His Lys Thr Ile Lys  
 225 230 235 240  
 Asn Met Ser Lys Glu  
 245

&lt;210&gt; 6243

&lt;211&gt; 326

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6243

gcgcgccagg gagagaagga gaggaactga tggaacaaag tcaaagagga agtgggataa  
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 120  
 tctgagacca gagggacaaa ccataatgag tgaagagatg aggacattct taaagtggag  
 180  
 ctagcaaagc tgggaatggc cttccacaag aggaaacctt agactggacc cagaatagta  
 240  
 aagggtgggtt tggggacttg aggcaagtga gaaagctctg gaaatgccgc tggataaatt  
 300  
 ctgtagggat gcattcctgg agagtg  
 326

&lt;210&gt; 6244

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 6244

Met His Pro Tyr Arg Ile Tyr Pro Ala Ala Phe Pro Glu Leu Ser His  
 1 5 10 15  
 Leu Pro Gln Val Pro Lys Pro Thr Phe Thr Ile Leu Gly Pro Val Leu  
 20 25 30  
 Gly Phe Leu Leu Trp Lys Ala Ile Pro Ser Phe Ala Ser Ser Thr Leu  
 35 40 45  
 Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser  
 50 55 60  
 Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys  
 65 70 75 80  
 Pro Tyr Val Leu Ser Tyr Pro Thr Ser Ser Leu Thr Leu Phe His Gln  
 85 90 95  
 Phe Leu Ser Phe Ser Pro Trp Arg  
 100

&lt;210&gt; 6245

&lt;211&gt; 6609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6245

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 aagttcttgg ttcaagtcaa cctgttactt gccattggat ggtaatatatt gacttttcaa  
 120  
 tcttatcctg attgataagc ggactccag tttttgcctt ctctttgccc cagaatttgg  
 180  
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 240  
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 300  
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 900  
 gcacatagag atgaaatcca gcgcaaattt gatgctcttc gtaacagctg tactgtaatc  
 960



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1860  
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1920  
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1980  
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2100  
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2160  
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2220  
accgtgcact ttggacgcca ggcattcaaa tgtctcgaat gtcaggtgat gtgtcaccac  
2280  
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2400  
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2460  
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2520  
gccagagaag ctggacagag gccgggtggaa gaatttgagc tgtgccttcc cgacggggat  
2580



gtatctattc atggtgccgt tgggtgcttcc gaactcgcaa atacagccaa agcagatgtc  
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2820  
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2940  
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3060  
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3480  
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<211> 1286

<212> PRT

<213> Homo sapiens

<400> 6246

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Glu	Gln	Leu	Asn	Gln	Leu	Thr	Glu	Asp	Asn	Ala	Glu	Leu	Asn	Asn	Gln			
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Glu	Ile	Val	Gln	Leu	Arg	Ser	Glu	Val	Asp	His	Leu	Arg	Arg	Glu	Ile			
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Ala	Leu	Asn	Asp	Glu	Leu	Glu	Lys	Glu	Arg	Gln	Trp	Glu	Ala	Trp				
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&lt;210&gt; 6247

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6247

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 Arg Glu Thr Ala Gly Ser Arg Pro Ala Ala Arg Ser Pro Gly Arg Glu  
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 Ile Leu Phe Ile Cys Ala Arg Gly Arg Arg Gly Asn Pro Cys Leu Ser  
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&lt;210&gt; 6250

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6250

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 Tyr Pro Gly Ile Gln Thr Arg Val Leu Asp Val Thr Lys Lys Lys Gln  
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 Val Ala Gly Phe Val His His Gly Thr Val Leu Asp Cys Glu Glu Lys  
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 Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys Ser  
 145 150 155 160  
 Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val Cys



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&lt;210&gt; 6251

<211> 1611

<212> DNA

<213> Homo sapiens

<400> 6251

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<210> 6252

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6252

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Ala	Lys	Ser	Ser	Lys	Gly	Lys	Gly	Arg	Gly	His	Ser	Gly	Glu	Asn	Ser
			20					25				30			
Ile	Ser	Gly	Lys	Thr	Gly	Ile	His	Phe	Lys	Ile	Ser	Ala	Gln	Lys	Gly
			35				40					45			
Ser	Arg	Ala	Val	Leu	Lys	Pro	Gly	Arg	Gln	Gly	Pro	Pro	Ile	Pro	Thr
			50			55					60				
Ile	Leu	Leu	Ser	Pro	Ser	Pro	Pro	Trp	Arg	Thr	Leu	Ala	Arg	Val	Tyr
65				70					75					80	
Arg	Glu	Ser	His	His	Ile	Tyr	Tyr	Glu	Ala	Arg	Ala	Leu	Gly	Tyr	Val
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			100												

<210> 6253

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 6253

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 <211> 216  
 <212> PRT  
 <213> Homo sapiens

<400> 6254  
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 Glu Ala Thr Leu Gly Ser Gly Asn Leu Arg Gln Ala Val Met Leu Pro  
 35 40 45  
 Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe  
 50 55 60  
 Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr  
 65 70 75 80  
 Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His  
 85 90 95  
 Trp Ala Asp Gly Thr Asn Ile Lys Lys Pro Ile Lys Cys Ser Ala Pro  
 100 105 110  
 Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp  
 115 120 125  
 Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe  
 130 135 140  
 Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala  
 145 150 155 160  
 His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu  
 165 170 175  
 Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu  
 180 185 190  
 Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile  
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 Glu Lys Leu Gly Ser Lys Asp Arg  
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 <211> 622  
 <212> DNA  
 <213> Homo sapiens

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<210> 6256

<211> 150

<212> PRT

<213> Homo sapiens

<400> 6256

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			20					25					30		
His	Pro	Arg	Val	Val	Glu	Leu	Pro	Lys	Thr	Asp	Glu	Gly	Leu	Gly	Phe
		35				40					45				
Asn	Ile	Met	Gly	Gly	Lys	Glu	Gln	Asn	Ser	Pro	Ile	Tyr	Ile	Ser	Arg
	50				55					60					
Val	Ile	Pro	Gly	Gly	Val	Ala	Asp	Arg	His	Gly	Gly	Leu	Lys	Arg	Gly
65					70				75					80	
Asp	Gln	Leu	Leu	Ser	Val	Asn	Gly	Val	Ser	Val	Glu	Gly	Glu	Gln	His
			85					90						95	
Glu	Lys	Ala	Val	Glu	Leu	Leu	Lys	Ala	Ala	Gln	Gly	Ser	Val	Lys	Leu
			100					105					110		
Val	Val	Arg	Tyr	Thr	Pro	Arg	Val	Leu	Glu	Glu	Met	Glu	Ala	Arg	Phe
		115					120					125			
Glu	Lys	Met	Arg	Ser	Ala	Arg	Arg	Arg	Gln	Gln	His	Gln	Ser	Tyr	Ser
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<210> 6257

<211> 2216

<212> DNA

<213> Homo sapiens

<400> 6257

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<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

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		35					40					45			
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	50					55					60				
Ser	Lys	Lys	Pro	Val	Val	Thr	Phe	Gln	Ala	His	Asp	Gly	Pro	Val	Tyr
65					70					75				80	
Ser	Met	Val	Ser	Thr	Asp	Arg	His	Leu	Leu	Ser	Ala	Gly	Asp	Gly	Glu
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Val	Lys	Ala	Trp	Leu	Trp	Ala	Glu	Met	Leu	Lys	Lys	Gly	Cys	Lys	Glu
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				165					170					175	
Arg	Glu	Arg	Ser	Pro	Glu	Val	Leu	Ser	Gly	Gly	Glu	Asp	Gly	Ala	Val
			180					185					190		
Arg	Leu	Trp	Asp	Leu	Arg	Thr	Ala	Lys	Glu	Val	Gln	Thr	Ile	Glu	Ser
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Ile	Ser	Thr	Arg	Ser	Ala	Arg	Gly	Pro	Thr	Met	Gly	Ala	Gly	Leu	Asp
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Val	Trp	Thr	Asp	Ser	Asp	Trp	Met	Val	Cys	Gly	Gly	Gly	Pro	Ala	Leu
225					230					235				240	
Thr	Leu	Trp	His	Leu	Arg	Ser	Ser	Thr	Pro	Thr	Thr	Ile	Phe	Pro	Ile
				245					250					255	
Arg	Ala	Pro	Gln	Lys	His	Val	Thr	Phe	Tyr	Gln	Asp	Leu	Ile	Leu	Ser



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Asn Gln Gln Pro Ala Ala Pro Glu Cys Lys Val Leu Thr Ala Ala Gly
305                310                315                320
Asn Ser Cys Arg Val Asp Val Phe Thr Asn Leu Gly Tyr Arg Ala Phe
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Ser Leu Ser Phe
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&lt;210&gt; 6259

&lt;211&gt; 384

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6259

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384

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&lt;210&gt; 6260

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6260

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Pro Cys Ser Asp Pro Ile Glu His Ser Ser Glu Ser Asp Asn Ser Val
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20          25          30
Gln Lys Asn Glu Lys Ile Lys Tyr Ser Arg Phe Ala Ala Thr Asn Thr
35          40          45
Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp
50          55          60
His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser
65          70          75          80
Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys
85          90          95
Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu
100         105         110
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115

120

125

&lt;210&gt; 6261

&lt;211&gt; 3619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6261

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&lt;210&gt; 6262

&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6262

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Val	Arg	Leu	Gln	Asn	Glu	Thr	Ser	Tyr	Ser	Arg	Val	Leu	His	Gly	Tyr
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Ala	Ala	Gln	Gln	Leu	Pro	Ser	Leu	Leu	Lys	Glu	Arg	Glu	Phe	His	Leu
			50			55				60					
Gly	Thr	Leu	Asn	Lys	Val	Phe	Ala	Ser	Gln	Trp	Leu	Asn	His	Arg	Gln
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			85					90					95		
Thr	Ser	Gln	Ile	Thr	Lys	Ile	Pro	Ile	Leu	Lys	Asp	Arg	Glu	Pro	Gly
			100					105					110		
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			115			120						125			
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145				150						155					160
His	Lys	Asp	Trp	Ile	Phe	Ser	Ile	Ala	Trp	Ile	Ser	Asp	Thr	Met	Ala
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Pro	Ser	Tyr	Asn	Val	Lys	Ser	Val	Cys	Ser	Arg	Glu	Arg	Gly	Ser	Gly
305	310					315					320				
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Trp	Arg	Asn	Tyr	Phe	Ser	Asp	Ile	Asp	Phe	Phe	Pro	Asn	Ala	Val	Tyr
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Thr	His	Cys	Tyr	Asp	Ser	Ser	Gly	Thr	Lys	Leu	Phe	Val	Ala	Gly	Gly
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<210> 6263

<211> 2508

<212> DNA

<213> Homo sapiens

<400> 6263

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 2508

<210> 6264

<211> 654

<212> PRT

<213> Homo sapiens

<400> 6264

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Cys	Thr	Gly	Ile	Glu	Asn	Ile	Asp	Glu	Ala	Ile	Thr	Leu	Leu	Glu	Gln
			20					25					30		
Asn	Asn	Trp	Asp	Leu	Val	Ala	Ala	Ile	Asn	Gly	Val	Ile	Pro	Gln	Glu
			35				40					45			
Asn	Gly	Ile	Leu	Gln	Ser	Glu	Tyr	Gly	Gly	Glu	Thr	Ile	Pro	Gly	Pro
			50			55					60				
Ala	Phe	Asn	Pro	Ala	Ser	His	Pro	Ala	Ser	Ala	Pro	Thr	Ser	Ser	Ser
65					70					75				80	
Ser	Ser	Ala	Phe	Arg	Pro	Val	Met	Pro	Ser	Arg	Gln	Ile	Val	Glu	Arg
			85					90					95		
Gln	Pro	Arg	Met	Leu	Asp	Phe	Arg	Val	Glu	Tyr	Arg	Asp	Arg	Asn	Val
			100					105					110		
Asp	Val	Val	Leu	Glu	Asp	Thr	Cys	Thr	Val	Gly	Glu	Ile	Lys	Gln	Ile
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Leu	Glu	Asn	Glu	Leu	Gln	Ile	Pro	Val	Ser	Lys	Met	Leu	Leu	Lys	Gly
			130			135					140				
Trp	Lys	Thr	Gly	Asp	Val	Glu	Asp	Ser	Thr	Val	Leu	Lys	Ser	Leu	His
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Leu	Pro	Lys	Asn	Asn	Ser	Leu	Tyr	Val	Leu	Thr	Pro	Asp	Leu	Pro	Pro
			165					170					175		
Pro	Ser	Ser	Ser	Ser	His	Ala	Gly	Ala	Leu	Gln	Glu	Ser	Leu	Asn	Gln
			180					185					190		
Asn	Phe	Met	Leu	Ile	Ile	Thr	His	Arg	Glu	Val	Gln	Arg	Glu	Tyr	Asn
		195				200					205				
Leu	Asn	Phe	Ser	Gly	Ser	Ser	Thr	Ile	Gln	Glu	Val	Lys	Arg	Asn	Val
		210				215					220				
Tyr	Asp	Leu	Thr	Ser	Ile	Pro	Val	Arg	His	Gln	Leu	Trp	Glu	Gly	Trp
225					230					235				240	
Pro	Thr	Ser	Ala	Thr	Asp	Asp	Ser	Met	Cys	Leu	Ala	Glu	Ser	Gly	Leu
			245					250					255		
Ser	Tyr	Pro	Cys	His	Arg	Leu	Thr	Val	Gly	Arg	Arg	Ser	Ser	Pro	Ala
			260					265					270		
Gln	Thr	Arg	Glu	Gln	Ser	Glu	Glu	Gln	Ile	Thr	Asp	Val	His	Met	Val



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Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala Leu Arg Lys Ser
305              310              315              320
Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu Asn Glu Gly Asp
      325              330              335
Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg Tyr Gly Asp Cys
      340              345              350
His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala Phe Gln Glu Ala
      355              360              365
Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala Ile Tyr Leu His
      370              375              380
His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser Gln Met Leu Cys
385              390              395              400
Ala Glu Ser Ile Val Ser Tyr Leu Ser Gln Asn Phe Ile Thr Trp Ala
      405              410              415
Trp Asp Leu Thr Lys Asp Ser Asn Arg Ala Arg Phe Leu Thr Met Cys
      420              425              430
Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile Arg Thr Gln Lys
      435              440              445
Thr Asp Gln Phe Pro Leu Phe Leu Ile Ile Met Gly Lys Arg Ser Ser
      450              455              460
Asn Glu Val Leu Asn Val Ile Gln Gly Asn Thr Thr Val Asp Glu Leu
465              470              475              480
Met Met Arg Leu Met Ala Ala Met Glu Ile Phe Thr Ala Gln Gln Gln
      485              490              495
Glu Asp Ile Lys Asp Glu Asp Glu Arg Glu Ala Arg Glu Asn Val Lys
      500              505              510
Arg Glu Gln Asp Glu Ala Tyr Arg Leu Ser Leu Glu Ala Asp Arg Ala
      515              520              525
Lys Arg Glu Ala His Glu Arg Glu Met Ala Glu Gln Phe Arg Leu Glu
      530              535              540
Gln Ile Arg Lys Glu Gln Glu Glu Glu Arg Glu Ala Ile Arg Leu Ser
545              550              555              560
Leu Glu Gln Ala Leu Pro Pro Glu Pro Lys Glu Glu Asn Ala Glu Pro
      565              570              575
Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu Phe Leu Glu Arg
      580              585              590
Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe Asp Phe Val Ala
      595              600              605
Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu Ser Thr Phe Pro
      610              615              620
Arg Arg Asp Val Thr Gln Leu Asp Pro Asn Lys Ser Leu Leu Glu Val
625              630              635              640
Lys Leu Phe Pro Gln Glu Thr Leu Phe Leu Glu Ala Lys Glu
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&lt;210&gt; 6265

&lt;211&gt; 1344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6265



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 1344

&lt;210&gt; 6266

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6266

Xaa Ala Leu Pro Ala Ser His Arg Pro Gly Gln Gln Gly Leu Asn Pro



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Ser Pro Asp Asp Lys Glu Phe Gln Ser Val Glu Glu Glu Met Gln Ser
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Thr Val Arg Glu His Arg Asp Gly Gly His Ala Gly Gly Ile Phe Asn
      50           55           60
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
      65           70           75           80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn
      85           90           95
His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala
      100          105          110
Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met
      115          120          125
Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln
      130          135          140
Tyr Val Tyr Gly Ile Gly Gly Gly Thr Gly Cys Pro Val His Lys Asp
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Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr
      165          170          175
Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser
      180          185          190
Pro Pro Gly His His Ser Val Thr Gly Arg Pro Ser Val Asn Gly Leu
      195          200          205
Ala Leu Ala Glu Tyr Val Ile Tyr Arg Gly Glu Gln Ala Tyr Pro Glu
      210          215          220
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&lt;210&gt; 6267

&lt;211&gt; 328

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6267

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328

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&lt;210&gt; 6268

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 6268

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 Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys  
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 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln  
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&lt;210&gt; 6269

&lt;211&gt; 923

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6269

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&lt;210&gt; 6270



<211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 6270

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Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu
          35           40           45
Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
          50           55           60
Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
65           70           75           80
Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
          85           90           95
Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
          100          105          110
Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
          115          120          125
Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
          130          135          140
Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
145          150          155          160
Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
          165          170          175
Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
          180          185          190
Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
          195          200          205
Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
          210          215          220
Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
225          230          235          240
Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
          245          250          255
Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
          260          265          270
Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
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Leu Val Asn
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<210> 6271  
 <211> 1437  
 <212> DNA  
 <213> Homo sapiens

<400> 6271

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1437

&lt;210&gt; 6272

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6272

Xaa Met Ala Thr Gly Gly Gln Gln Lys Glu Asn Thr Leu Leu His Leu



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Thr Val Tyr Tyr Pro Gln Val His Leu Gly Thr Ile Ser Gly Ala Gly
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Met Val Arg Pro Thr Ser Val Thr Pro Gly Leu Phe Gln Val Leu Lys
      65           70           75           80
Ala Val Tyr Phe Ala Cys Tyr Ser Lys Ala Lys Glu Gln Phe Asn Gly
      85           90           95
Ile Phe Val Pro Asn Ser Asn Ile Val His Leu Phe Ser Ala Gly Ser
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Ala Ala Phe Ile Thr Asn Ser Leu Met Asn Pro Ile Trp Met Val Lys
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Thr Arg Met Gln Leu Glu Gln Lys Val Arg Gly Ser Lys Gln Met Asn
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Phe Tyr Arg Gly Leu Thr Ala Ser Tyr Ala Gly Ile Ser Glu Thr Ile
      165          170          175
Ile Cys Phe Ala Ile Tyr Glu Ser Leu Lys Lys Tyr Leu Lys Glu Ala
      180          185          190
Pro Leu Ala Ser Ser Ala Asn Gly Thr Glu Lys Asn Ser Thr Ser Phe
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Ile Ala Tyr Pro His Glu Val Ile Arg Thr Arg Leu Arg Glu Glu Gly
      225          230          235          240
Thr Lys Tyr Lys Ser Phe Val Gln Thr Ala Arg Leu Val Phe Arg Glu
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Glu Gly Tyr Leu Ala Phe Tyr Arg Gly Leu Phe Ala Gln Leu Ile Arg
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Gln Ile Pro Asn Thr Ala Ile Val Leu Ser Thr Tyr Glu Leu Ile Val
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Tyr Leu Leu Glu Asp Arg Thr Gln
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&lt;210&gt; 6273

&lt;211&gt; 2355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6273

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300

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 <212> PRT  
 <213> Homo sapiens

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 <213> Homo sapiens

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&lt;210&gt; 6276

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6276

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				20				25					30		
Asp	Asp	Leu	Ser	Asn	Ala	Ala	Arg	Glu	Leu	Arg	Val	Leu	Ile	Asp	Asp
				35			40					45			
Ser	Gln	Ser	Ile	Ile	Phe	Ile	Asn	Leu	Asp	Ser	His	Arg	Asn	Val	Met
				50			55				60				
Ile	Arg	Leu	Asn	Leu	Gln	Leu	Thr	Met	Gly	Thr	Phe	Ser	Leu	Ser	Leu



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Phe	Gly	Leu	Met	Gly	Val	Ala	Phe	Gly	Met	Asn	Leu	Glu	Ser	Ser	Leu
		85		90										95	
Glu	Glu	Asp	His	Arg	Ile	Phe	Trp	Leu	Ile	Thr	Gly	Ile	Met	Phe	Met
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Gly	Ser	Gly	Leu	Ile	Trp	Arg	Arg	Leu	Leu	Ser	Phe	Leu	Gly	Arg	Gln
		115					120					125			
Leu	Glu	Ala	Pro	Leu	Pro	Pro	Met	Met	Ala	Ser	Leu	Pro	Lys	Lys	Thr
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Leu	Leu	Ala	Asp	Arg	Ser	Met	Glu	Leu	Lys	Asn	Ser	Leu	Arg	Leu	Asp
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&lt;210&gt; 6277

&lt;211&gt; 1206

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6277

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<210> 6278

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6278

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Gly	Val	Lys	Leu	Met	Asp	Phe	Gln	Ala	His	Arg	Arg	Gly	Gly	Thr	Leu
			20					25					30		
Asn	Arg	Lys	His	Ile	Ser	Pro	Ala	Phe	Gln	Pro	Pro	Leu	Pro	Pro	Thr
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Asp	Gly	Ser	Thr	Val	Val	Pro	Ala	Gly	Pro	Glu	Pro	Pro	Pro	Gln	Ser
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Ser	Arg	Ala	Glu	Ser	Ser	Ser	Gly	Gly	Gly	Thr	Val	Pro	Ser	Ser	Ala
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				85					90					95	
Pro	Lys	Asp	Pro	Val	Ser	Ala	Ala	Val	Pro	Ala	Pro	Xaa	Glu	Lys	Gln
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Gln	Ser	Asp	Ser	Ile	Trp	Pro	Lys	Ser	Ala	Pro	Gly	Ser	Cys	Trp	Leu
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Pro	Pro	Ala	Leu	His	Gly	Pro	Pro	His	Asn	Ala	Ala	Gly	Pro	Ser	Pro
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				165					170					175	
Thr	Ser	Gln	His	Pro	Pro	Ser	Leu	Ser	Pro	Lys	Pro	Pro	Thr	Arg	Ser
			180					185					190		
Pro	Ser	Pro	Pro	Pro	Ser	Thr	Arg	Ala	Ser	Leu	Gln	Ala	Ser	Pro	Pro
		195					200					205			
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		210				215						220			
Pro	Ile	Gln	Ala	Pro	Asn	His	Pro	Pro	Pro	Gln	Pro	Pro	Thr	Gln	Ala
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Thr	Pro	Leu	Met	His	Thr	Lys	Pro	Asn	Ser	Gln	Gly	Pro	Pro	Asn	Pro
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305          310          315          320
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          325          330          335
His Ser Ala Gly Asp Ser Ser Leu Thr Asn Thr Ala Pro Thr Ala Ser
          340          345          350
Lys Ile Val Thr Asp Ser Asn Ser Arg Val Ser Glu Pro His Arg Ser
          355          360          365
Ile Phe Pro Glu Met His Ser Asp Ser Ala Ser Lys Asp Val Pro Gly
          370          375          380
Arg Ile Leu Leu Asp Ile Asp Asn Asp Thr Glu Ser Thr Ala Leu
385          390          395

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&lt;210&gt; 6279

&lt;211&gt; 2795

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6279

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2700



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<211> 619
<212> PRT
<213> Homo sapiens
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Asn	Glu	Arg	Pro	Ser	Ala	Gly	Ser	Lys	Ala	Asn	Lys	Glu	Phe	Gly	Asp	
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Ser	Leu	Ser	Leu	Glu	Ile	Leu	Gln	Ile	Ile	Lys	Glu	Ser	Gln	Gln	Gln	
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His	Gly	Leu	Arg	His	Gly	Asp	Phe	Gln	Arg	Tyr	Arg	Gly	Tyr	Cys	Ser	
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Arg	Arg	Gln	Arg	Arg	Leu	Arg	Lys	Thr	Leu	Asn	Phe	Lys	Met	Gly	Asn	
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Arg	His	Lys	Phe	Thr	Gly	Lys	Lys	Val	Thr	Glu	Glu	Leu	Leu	Thr	Asp	
			100					105					110			
Asn	Arg	Tyr	Leu	Leu	Val	Leu	Met	Asp	Ala	Glu	Arg	Ala	Trp	Ser		
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Phe	His	Leu	Leu	Ser	Arg	Leu	Arg	Lys	Ala	Val	Lys	His	Ala	Glu	Glu	
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Leu	Glu	Arg	Leu	Cys	Lys	Ser	Asn	Arg	Val	Asp	Ala	Lys	Thr	Lys	Leu	
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Glu	Ala	Gln	Ala	Tyr	Thr	Ala	Tyr	Leu	Ser	Gly	Met	Leu	Arg	Phe	Glu	
			180					185					190			
His	Gln	Glu	Trp	Lys	Ala	Ala	Ile	Glu	Ala	Phe	Asn	Lys	Cys	Lys	Thr	
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Tyr	Asn	Gln	Arg	Val	Glu	Glu	Ile	Ser	Pro	Asn	Ile	Arg	Tyr	Cys	Ala	
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Leu	Arg	Ser	Gly	Gly	Thr	Glu	Gly	Leu	Leu	Ala	Glu	Lys	Leu	Glu	Ala	
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Leu	Ile	Thr	Gln	Thr	Arg	Ala	Lys	Gln	Ala	Ala	Thr	Met	Ser	Glu	Val	
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Phe	Leu	Leu	Gly	Leu	Ala	Asp	Asn	Glu	Ala	Ala	Ile	Val	Gln	Ala	Glu	
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				325					330					335		
Arg	Asp	Ala	Ile	G												



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          355          360          365
Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr Ala Ile
          370          375          380
Lys Arg Asn Glu Asn Met Ala Lys Gly Leu His Arg Ala Leu Leu Gln
385          390          395          400
Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln Asp Leu
          405          410          415
Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln
          420          425          430
Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu
          435          440          445
Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser
          450          455          460
Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr Asp Arg
465          470          475          480
Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys
          485          490          495
Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr Gln Val
          500          505          510
Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp Ala Asn
          515          520          525
Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp Asn Lys
          530          535          540
Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser Leu Val
545          550          555          560
Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln Pro Ile
          565          570          575
Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe
          580          585          590
Pro Pro Leu Glu Asp Lys Leu Glu Gln Lys Thr Lys Ser Gly Leu Thr
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Gly Tyr Ile Lys Gly Ile Phe Gly Phe Arg Ser
          610          615

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&lt;210&gt; 6281

&lt;211&gt; 741

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6281

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tgggctactc gttccggagc cgccatgtcg tccgacttcg aagggttacga gcaggacttc
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240

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300

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gaacagatgg atttgaagt ccgagagata ccacccaaa gtcgagggat gtacagcaac
360

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&lt;210&gt; 6282

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6282

Met	Ser	Ser	Asp	Phe	Glu	Gly	Tyr	Glu	Gln	Asp	Phe	Ala	Val	Leu	Thr
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Ala	Glu	Ile	Thr	Ser	Lys	Ile	Ala	Arg	Val	Pro	Arg	Leu	Pro	Pro	Asp
			20					25					30		
Glu	Lys	Lys	Gln	Met	Val	Ala	Asn	Val	Glu	Lys	Gln	Leu	Glu	Glu	Ala
			35				40					45			
Lys	Glu	Leu	Leu	Glu	Gln	Met	Asp	Leu	Glu	Val	Arg	Glu	Ile	Pro	Pro
			50			55					60				
Gln	Ser	Arg	Gly	Met	Tyr	Ser	Asn	Arg	Met	Arg	Ser	Tyr	Lys	Gln	Glu
65					70				75					80	
Met	Gly	Lys	Leu	Glu	Thr	Asp	Phe	Lys	Arg	Ser	Arg	Ile	Ala	Tyr	Ser
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Asp	Glu	Val	Arg	Asn	Glu	Leu	Leu	Gly	Asp	Asp	Gly	Asn	Ser	Ser	Glu
			100					105				110			
Asn	Gln	Arg	Ala	His	Leu	Leu	Asp	Asn	Thr	Glu	Arg	Leu	Glu	Arg	Ser
			115				120					125			
Ser	Arg	Arg	Leu	Glu	Ala	Gly	Tyr	Gln	Ile	Ala	Val	Glu	Thr	Gly	Glu
			130			135					140				
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Asn	Thr														

&lt;210&gt; 6283

&lt;211&gt; 2312

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6283

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<212> PRT

<213> Homo sapiens

<400> 6284

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Lys	Pro	Ile	His	Val	Phe	Phe	Gly	Ala	Ala	Ile	Leu	Ser	Leu	Ser	Ile
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	50				55					60					
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Asn	Ser	Thr	Gly	Met	Leu	Val	Val	Ala	Phe	Gly	Leu	Leu	Val	Leu	Tyr
			85					90					95		
Ile	Leu	Leu	Ala	Ser	Ser	Trp	Lys	Arg	Pro	Glu	Pro	Gly	Ile	Leu	Thr
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Asp	Arg	Gln	Pro	Leu	Leu	His	Asp	Gly	Glu						
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<211> 2542

<212> DNA

<213> Homo sapiens

<400> 6285

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 120



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1740



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 <212> PRT  
 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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 120



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180  
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240  
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300  
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360  
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&lt;210&gt; 6288



&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6288

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          20           25           30
Asp Val Lys Asn Phe Tyr Leu Met Thr Asn Gly Phe His Met Thr Trp
          35           40           45
Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile
          50           55           60
Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser
65           70           75           80
Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu
          85           90           95
Ala Ser Asp Asp Gln Pro Glu Lys Pro His Phe Asp Ser Arg Ser Val
          100          105          110
Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val
          115          120          125
Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe
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Leu Asp Arg Ala Leu Tyr Trp His Phe Leu Thr Asp Thr Phe Thr Ala
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Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr
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Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln Ala Lys Gln Trp Phe Ser
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Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr
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Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys
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Asn Lys Ile Val Ile Pro Lys Lys Lys Gly Pro Val Gln Pro Ala Gly
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Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro Thr Arg Lys
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```

&lt;210&gt; 6289

&lt;211&gt; 1321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6289

```

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&lt;210&gt; 6290

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6290

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			20					25					30		
Ser	Pro	Asp	Glu	Gly	Leu	Ile	Glu	Asp	Leu	Thr	Ile	Glu	Asp	Lys	Ala
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Val	Glu	Gln	Leu	Ala	Glu	Gly	Leu	Leu	Ser	His	Tyr	Leu	Pro	Asp	Leu
	50						55				60				
Gln	Arg	Ser	Lys	Gln	Ala	Leu	Gln	Glu	Leu	Thr	Gln	Asn	Gln	Val	Val



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Ser	Met	Leu	Asp	Ile	Asn	Ala	Leu	Phe	Ala	Glu	Ala	Lys	His	Tyr	His
		100		105		110									
Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
		115		120		125									
Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
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Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
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Glu	Lys	Gln	Leu	Thr	Ala	Arg	Pro	Ala	Lys	Arg	Met				
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&lt;210&gt; 6291

&lt;211&gt; 2718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6291

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<210> 6292

<211> 497

<212> PRT

<213> Homo sapiens

<400> 6292

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Leu	Ser	Arg	Pro	Gln	Pro	Pro	Pro	Asp	Pro	Leu	Leu	Leu	Gln	Arg	Leu
	35					40					45				
Pro	Arg	Pro	Ser	Ser	Leu	Ser	Asp	Lys	Thr	Gln	Leu	His	Ser	Arg	Trp
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Leu	Asp	Ser	Ser	Arg	Cys	Leu	Met	Gln	Gln	Gly	Ile	Lys	Ala	Gly	Asp
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Ala	Leu	Trp	Leu	Arg	Phe	Lys	Tyr	Tyr	Ser	Phe	Phe	Asp	Leu	Asp	Pro
		85						90					95		
Lys	Thr	Asp	Pro	Val	Arg	Leu	Thr	Gln	Leu	Tyr	Glu	Gln	Ala	Arg	Trp
	100						105					110			
Asp	Leu	Leu	Leu	Glu	Glu	Ile	Asp	Cys	Thr	Glu	Glu	Glu	Met	Met	Val
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Phe	Ala	Ala	Leu	Gln	Tyr	His	Ile	Asn	Lys	Leu	Ser	Gln	Ser	Gly	Glu
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Val	Gly	Glu	Pro	Ala	Gly	Thr	Asp	Pro	Gly	Leu	Asp	Asp	Leu	Asp	Val
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Ala	Leu	Ser	Asn	Leu	Glu	Val	Lys	Leu	Glu	Gly	Ser	Ala	Pro	Thr	Asp
		165						170					175		
Val	Leu	Asp	Ser	Leu	Thr	Thr	Ile	Pro	Glu	Leu	Lys	Asp	Tyr	Leu	Arg
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Ile	Phe	Arg	Pro	Arg	Lys	Leu	Thr	Leu	Lys	Gly	Tyr	Arg	Gln	His	Trp
	195					200						205			
Val	Val	Phe	Lys	Glu	Thr	Thr	Leu	Ser	Tyr	Tyr	Lys	Ser	Gln	Asp	Glu
	210					215					220				
Ala	Pro	Gly	Asp	Pro	Ile	Gln	Gln	Leu	Asn	Leu	Lys	Gly	Cys	Glu	Val
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Val	Pro	Asp	Val	Asn	Val	Ser	Gly	Gln	Lys	Phe	Cys	Ile	Lys	Leu	Leu
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Pro	Pro	Arg	Pro	Asp	Ala	Ser	Ala	Glu	Gly	Leu	Asn	Pro	Tyr	Gly	Leu
			325					330				335			
Val	Ala	Pro	Arg	Phe	Gln	Arg	Lys	Phe	Lys	Ala	Lys	Gln	Leu	Thr	Pro



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 Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly  
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 Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile  
 385 390 395 400  
 Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly  
 405 410 415  
 Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val  
 420 425 430  
 Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His Ile Asn  
 435 440 445  
 Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr  
 450 455 460  
 Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Glu Arg Ala Arg Gly Glu  
 465 470 475 480  
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 Phe

&lt;210&gt; 6293

&lt;211&gt; 750

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6293

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&lt;210&gt; 6294

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6294

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 20 25 30  
 Gly Gly Thr Ala Ile Ala Gly Ser Val Glu Ala Val Ala Arg Leu Lys  
 35 40 45  
 Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser  
 50 55 60  
 Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser  
 65 70 75 80  
 Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Ala Cys Gln Ile Leu Lys  
 85 90 95  
 Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser  
 100 105 110  
 Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala  
 115 120 125  
 Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln  
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 145 150 155 160  
 Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr  
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 Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly  
 180 185 190  
 Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val  
 195 200 205  
 Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val  
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 Gly Gly Ala Gln Arg Cys Gly Met Arg Ala Leu Gln Val Arg Thr Gly  
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 Lys Phe Arg Pro Ser Asp Glu His His Pro  
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&lt;210&gt; 6295

&lt;211&gt; 2091

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6295

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 240



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1860



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 2091

<210> 6296

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

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		20						25					30			
Ala	Cys	Gly	Cys	Arg	Leu	Val	Leu	Gly	Gly	Arg	Asp	Asp	Val	Ser	Ala	
	35					40					45					
Gly	Leu	Arg	Gly	Ser	His	Gly	Ala	Arg	Gly	Glu	Pro	Leu	Asp	Pro	Ala	
	50				55					60						
Arg	Pro	Leu	Gln	Arg	Pro	Pro	Arg	Pro	Glu	Val	Pro	Arg	Ala	Phe	Arg	
65				70					75					80		
Arg	Gln	Pro	Arg	Ala	Ala	Ala	Pro	Ser	Phe	Phe	Phe	Ser	Ser	Ile	Lys	
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Gly	Ser	Gly	Gly	Ser	Ser	Asp	Lys	Gly	Lys	Leu	Ser	Leu	Gln	Asp	Val	
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Ala	Glu	Leu	Ile	Arg	Ala	Arg	Ala	Cys	Gln	Arg	Val	Val	Val	Met	Val	
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Gly	Ala	Gly	Ile	Ser	Thr	Pro	Ser	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	
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Gly	Ser	Gly	Leu	Tyr	Ser	Asn	Leu	Gln	Gln	Tyr	Asp	Leu	Pro	Tyr	Pro	
		165				170							175			
Glu	Ala	Ile	Phe	Glu	Leu	Pro	Phe	Phe	Phe	His	Asn	Pro	Lys	Pro	Phe	
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Phe	Thr	Leu	Ala	Lys	Glu	Leu	Tyr	Pro	Gly	Asn	Tyr	Lys	Pro	Asn	Val	
	195					200					205					
Thr	His	Tyr	Phe	Leu	Arg	Leu	Leu	His	Asp	Lys	Gly	Leu	Leu	Leu	Arg	
	210				215						220					
Leu	Tyr	Thr	Gln	Asn	Ile	Asp	Gly	Leu	Glu	Arg	Val	Ser	Gly	Ile	Pro	
225				230					235					240		
Ala	Ser	Lys	Leu	Val	Glu	Ala	His	Gly	Thr	Phe	Ala	Ser	Ala	Thr	Cys	
		245					250							255		
Thr	Val	Cys	Gln	Arg	Pro	Phe	Pro	Gly	Glu	Asp	Ile	Arg	Ala	Asp	Val	
	260						265					270				
Met	Ala	Asp	Arg	Val	Pro	Arg	Cys	Pro	Val	Cys	Thr	Gly	Val	Val	Lys	
	275					280					285					
Pro	Asp	Ile	Val	Phe	Phe	Gly	Glu	Pro	Leu	Pro	Gln	Arg	Phe	Leu	Leu	
	290				295						300					
His	Val	Val	Asp	Phe	Pro	Met	Ala	Asp	Leu	Leu	Leu	Ile	Leu	Gly	Thr	



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305          310          315          320
Ser Leu Glu Val Glu Pro Phe Ala Ser Leu Thr Glu Ala Val Arg Ser
          325          330          335
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp Leu Val Gly Pro Leu Ala
          340          345          350
Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His
          355          360          365
Gly Val Glu Ser Leu Val Glu Leu Leu Gly Trp Thr Glu Glu Met Arg
          370          375          380
Asp Leu Val Gln Arg Glu Thr Gly Lys Leu Asp Gly Pro Asp Lys
385          390          395

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&lt;210&gt; 6297

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6297

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120
ttcggaagcc cggttcggcct ggaggagccg cagtgggtcc cggacaagga gtgtcggaga
180
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240
gggaagtgtc tctgcgacag gtgctgcagc cagaagggtgc cgctgcggcg catgtgcttt
300
gtggacccccg tgcggcagtg cgcgagtgtc gccctggtgt ccctcaagga ggcgaggttc
360
tacgacaagc agctcaaagt gctcctgagc ggtaaggacg ggtgtcctgc acagtccctgc
420
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472

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&lt;210&gt; 6298

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6298

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Met Ser Ser Glu Val Ser Ala Arg Arg Asp Ala Lys Lys Leu Val Arg
1          5          10          15
Ser Pro Ser Gly Leu Arg Met Val Pro Glu His Arg Ala Phe Gly Ser
          20          25          30
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys Glu Cys Arg
          35          40          45
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
          50          55          60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
65          70          75          80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
          85          90          95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

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	100		105		110										
Gln	Leu	Lys	Val	Leu	Leu	Ser	Gly	Lys	Asp	Gly	Cys	Pro	Ala	Gln	Ser
	115		120		125										
Cys	Ala	Leu	Arg	Gln	Pro	Ala	Pro	Arg	Val	Cys	Gly	Asp	Ala	Val	Gly
	130				135						140				
Cys	Ala														
145															

&lt;210&gt; 6299

&lt;211&gt; 1466

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6299

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 120  
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 660  
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 720  
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 780  
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 1200



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 1320  
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<210> 6300

<211> 372

<212> PRT

<213> Homo sapiens

<400> 6300

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Leu	Gln	Leu	Val	Ala	His	Leu	Arg	Ala	Gly	Glu	Arg	Cys	Gly	Gln	Ala
			20					25					30		
Ser	Gly	Gly	Pro	Arg	Arg	Ser	Arg	Gly	Gly	Gln	Pro	Ala	His	Trp	Pro
		35					40					45			
Arg	Glu	Ser	Leu	Val	Leu	Tyr	His	Trp	Thr	Gln	Ser	Phe	Ser	Ser	Gln
	50					55					60				
Lys	Val	Arg	Leu	Val	Ile	Ala	Glu	Lys	Gly	Leu	Val	Cys	Glu	Glu	Arg
65					70					75				80	
Asp	Val	Ser	Leu	Pro	Gln	Ser	Glu	His	Lys	Glu	Pro	Trp	Phe	Met	Arg
				85					90					95	
Leu	Asn	Leu	Gly	Glu	Glu	Val	Pro	Val	Ile	Ile	His	Arg	Asp	Asn	Ile
			100					105					110		
Ile	Ser	Asp	Tyr	Asp	Gln	Ile	Ile	Asp	Tyr	Val	Glu	Arg	Thr	Phe	Thr
		115					120					125			
Gly	Glu	His	Val	Val	Ala	Leu	Met	Pro	Glu	Val	Gly	Ser	Leu	Gln	His
	130					135					140				
Ala	Arg	Val	Leu	Gln	Tyr	Arg	Glu	Leu	Leu	Asp	Ala	Leu	Pro	Met	Asp
145					150					155				160	
Ala	Tyr	Thr	His	Gly	Cys	Ile	Leu	His	Pro	Glu	Leu	Thr	Thr	Asp	Ser
			165						170					175	
Met	Ile	Pro	Lys	Tyr	Ala	Thr	Ala	Glu	Ile	Arg	Arg	His	Leu	Ala	Asn
			180					185					190		
Ala	Thr	Thr	Asp	Leu	Met	Lys	Leu	Asp	His	Glu	Glu	Glu	Pro	Gln	Leu
		195					200					205			
Ser	Glu	Pro	Tyr	Leu	Ser	Lys	Gln	Lys	Lys	Leu	Met	Ala	Lys	Ile	Leu
	210					215					220				
Glu	His	Asp	Asp	Val	Ser	Tyr	Leu	Lys	Lys	Ile	Leu	Gly	Glu	Leu	Ala
225					230					235				240	
Met	Val	Leu	Asp	Gln	Ile	Glu	Ala	Glu	Leu	Glu	Lys	Arg	Lys	Leu	Glu
			245					250						255	
Asn	Glu	Gly	Gln	Lys	Cys	Glu	Leu	Trp	Leu	Cys	Gly	Cys	Ala	Phe	Thr
		260						265					270		
Leu	Ala	Asp	Val	Leu	Leu	Gly	Ala	Thr	Leu	His	Arg	Leu	Lys	Phe	Leu
		275					280						285		
Gly	Leu	Ser	Lys	Lys	Tyr	Trp	Glu	Asp	Gly	Ser	Arg	Pro	Asn	Leu	Gln



290		295		300
Ser Phe Phe Glu Arg Val Gln Arg Arg Phe Ala Phe Arg Lys Val Leu				
305		310		315
Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe				
	325		330	335
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu				
	340		345	350
Met Gly Ser Leu Gly Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys				
	355		360	365
Lys Lys Tyr Ile				
370				

&lt;210&gt; 6301

&lt;211&gt; 911

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6301

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911

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&lt;210&gt; 6302

&lt;211&gt; 202

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 6302

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 20 25 30  
 Glu Ser Leu Lys Lys Lys Ile Gln Pro Lys Leu Ser Leu Thr Leu Ser  
 35 40 45  
 Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser Ser  
 50 55 60  
 Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser  
 65 70 75 80  
 Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu Val  
 85 90 95  
 Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala  
 100 105 110  
 Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly Glu  
 115 120 125  
 Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr Lys  
 130 135 140  
 Asn Val Asn Gly Ile Lys Tyr His Ala Lys Asn Gly His Arg Thr Gln  
 145 150 155 160  
 Ile Arg Val Arg Lys Pro Phe Lys Cys Arg Cys Gly Lys Ser Tyr Lys  
 165 170 175  
 Thr Ala Gln Gly Leu Arg His His Thr Ile Asn Phe His Pro Pro Val  
 180 185 190  
 Ser Ala Glu Ile Ile Arg Lys Met Gln Gln  
 195 200

&lt;210&gt; 6303

&lt;211&gt; 676

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6303

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 300  
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 360  
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 420  
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 480  
 actgaaaaac tcaaaagctt gtcactgcag caacagcagg atggagataa tggggacagc  
 540



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<210> 6304

<211> 181

<212> PRT

<213> Homo sapiens

<400> 6304

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			20					25					30		
Val	Phe	Val	Glu	Ser	Ser	Glu	Thr	Leu	Asp	Tyr	Gln	Met	Ala	Phe	Ala
		35					40					45			
Asp	Ser	His	Leu	Trp	Lys	Leu	Leu	Asp	Arg	His	Ala	Asn	Thr	Ile	Arg
50						55					60				
Leu	Phe	Val	Leu	Leu	Pro	Glu	Gln	Ser	Pro	Val	Ser	Tyr	Ser	Lys	Arg
65					70					75				80	
Thr	Ala	Tyr	Gln	Lys	Ala	Gly	Gly	Asp	Ser	Gly	Asn	Val	Asp	Asp	Asp
				85					90					95	
Cys	Glu	Arg	Val	Lys	Gly	Pro	Val	Gly	Ser	Leu	Lys	Ser	Val	Glu	Ala
			100					105					110		
Ile	Leu	Glu	Glu	Ser	Thr	Glu	Lys	Leu	Lys	Ser	Leu	Ser	Leu	Gln	Gln
			115				120						125		
Gln	Gln	Asp	Gly	Asp	Asn	Gly	Asp	Ser	Ser	Lys	Ser	Thr	Glu	Thr	Ser
			130			135					140				
Asp	Phe	Glu	Asn	Ile	Glu	Ser	Pro	Leu	Asn	Glu	Arg	Asp	Ser	Ser	Ala
145					150					155				160	
Ser	Val	Asp	Asn	Arg	Glu	Leu	Glu	Gln	His	Ile	Gln	Thr	Ser	Asp	Pro
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Glu	Lys	Phe	Ser	Val											
				180											

<210> 6305

<211> 3853

<212> DNA

<213> Homo sapiens

<400> 6305

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 120  
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 180  
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 240  
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<211> 474

<212> PRT

<213> Homo sapiens

<400> 6306

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&lt;210&gt; 6307

&lt;211&gt; 2119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6307

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&lt;210&gt; 6308

&lt;211&gt; 483

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 6308

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Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp
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&lt;210&gt; 6309

&lt;211&gt; 564

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6309

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&lt;210&gt; 6310

&lt;211&gt; 83

&lt;212&gt; PRT

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&lt;400&gt; 6310

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**What is claimed is:**

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least contiguous nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.



8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
  - a) the nucleic acid of claim 1;
  - b) the polypeptide of claim 10; and
  - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said



compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;



- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,



wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.
27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.
28. The method of claim 27, wherein said subject is a human.
29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.
30. The method of claim 29, wherein said subject is a human.
31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.
32. The method of claim 31, wherein said subject is a human.



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(75) Inventors/Applicants (*for US only*): SHIMKETS,

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ning of each regular issue of the PCT Gazette.*

(54) Title: NUCLEIC ACIDS INCLUDING OPEN READING FRAMES ENCODING POLYPEPTIDES; "ORFX"

(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides en-  
coding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX  
polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynu-  
cleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

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International Application No

PCT/US 00/08621

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Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence	
A	--- LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence --- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

21 August 2000

Date of mailing of the international search report

23.11.00

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
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Authorized officer

Hix, R



# INTERNATIONAL SEARCH REPORT

Internat' Application No

PCT/US 00/08621

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i>."            SCIENCE,            vol. 287, 24 March 2000 (2000-03-24),            pages 2185-2195, XP002144875            the whole document            -----</p>	6



# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 00/08621

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
  
claims 1 to 32 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.



## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1 to 32 partially

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 1, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

2. Claim : .

Inventions 2 to 3161

claims 1 to 32 partially :

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 2 to 3161, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.